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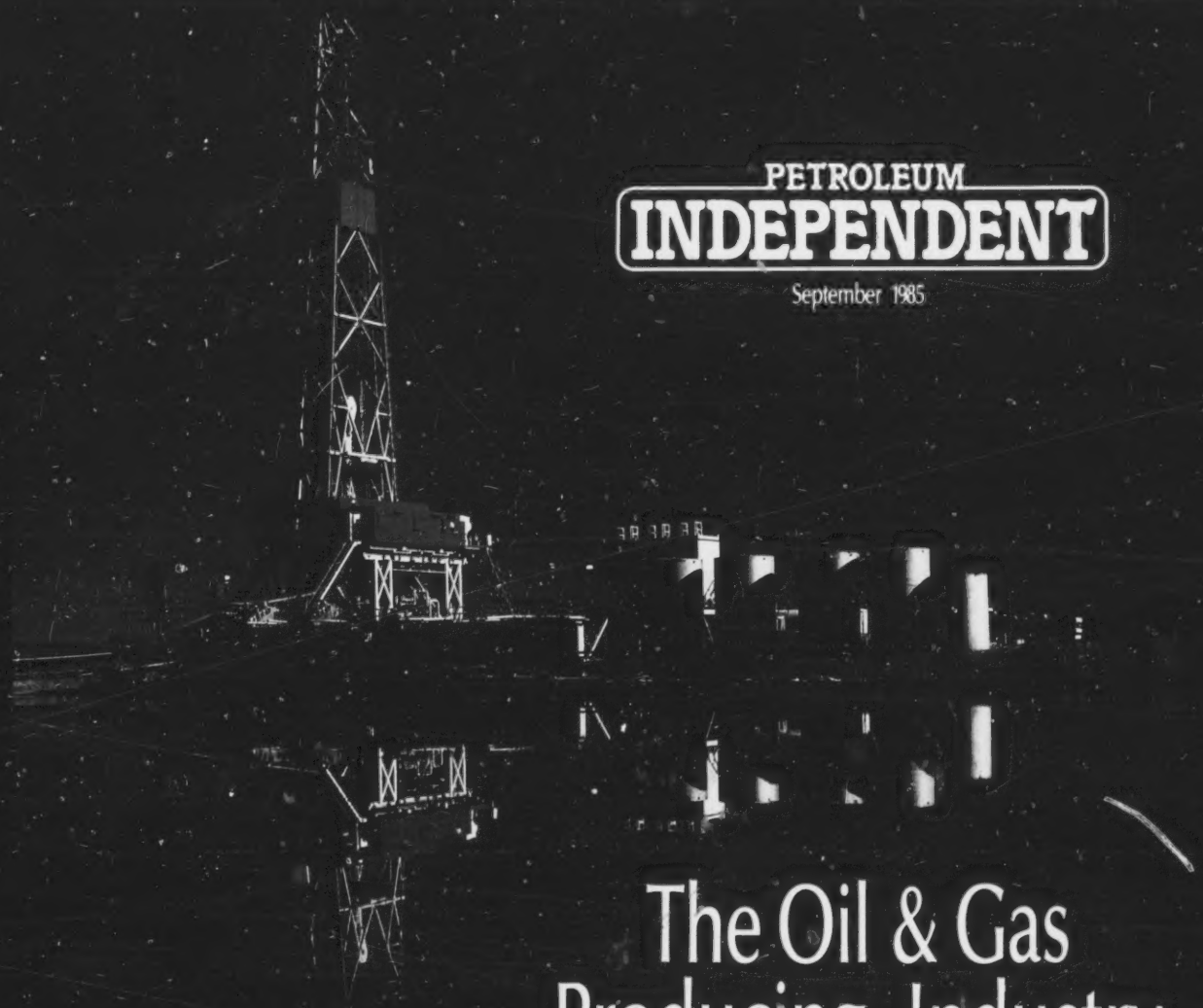

PETROLEUM
INDEPENDENT
September 1985

The Oil & Gas Producing Industry in Your State

1985-1986

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THE OIL & GAS PRODUCING INDUSTRY IN YOUR STATE

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IPAA also offers a package of Statistical and Economic Reports to non-members of the Association for the subscription price of $200 annually. In addition to **The Oil & Gas Producing Industry In Your State,** the series includes the following publications:

Weekly Oil Trends (weekly)

Supply & Demand Outlook (monthly)

Wholesale Oil Prices (monthly)

United States Petroleum Statistics (semi-annually)

Supply & Demand Committee Report (semi-annually)

Cost Study Committee Report (semi-annually)

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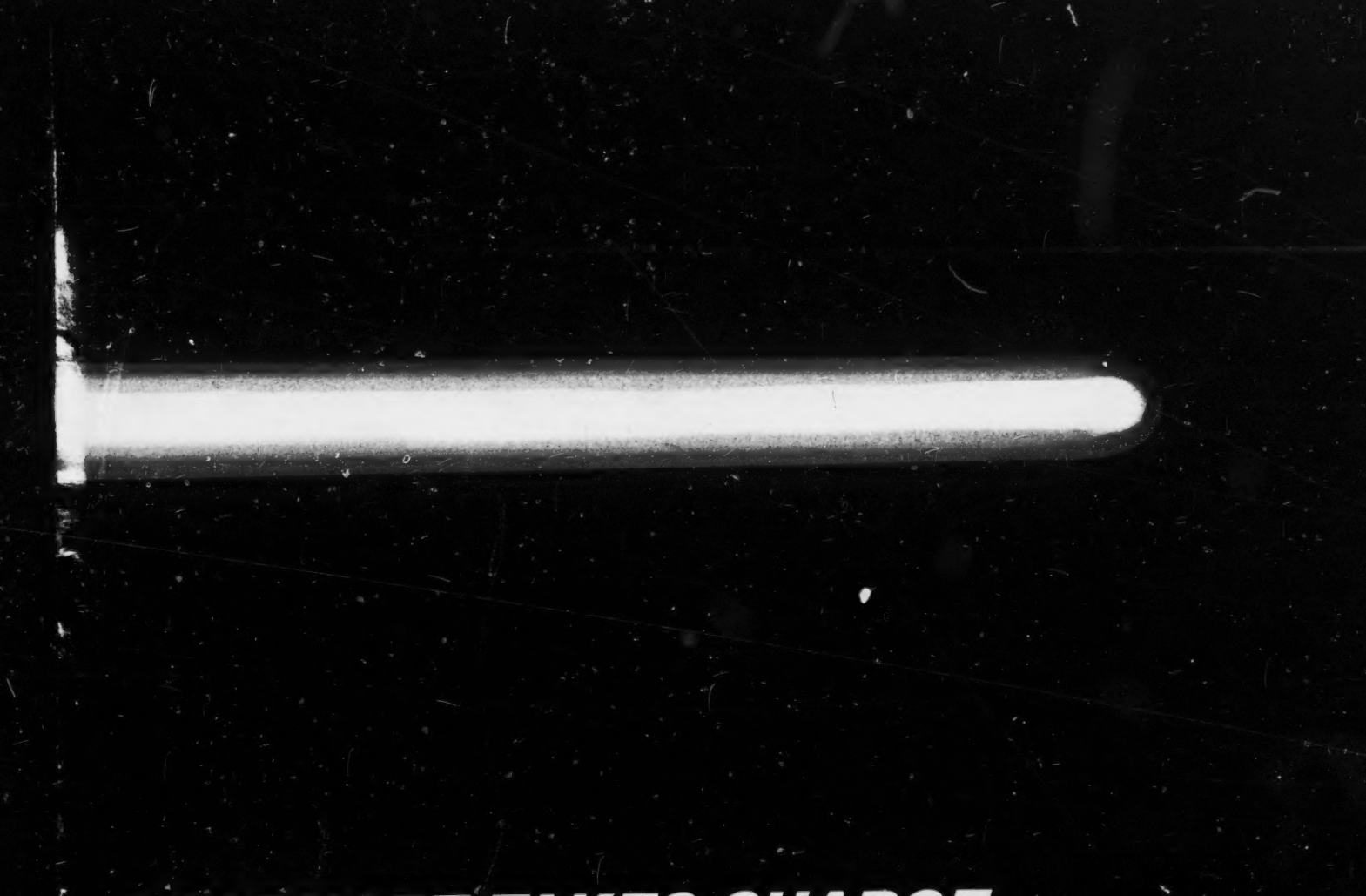

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CHARGE	# TESTED IN BEREA	AVERAGE PENETRATION	INCREASED PENETRATION EXCEEDING PUBLISHED API DATA
DML XXIII	445	15.95 inches	8.5%
DML XIX	331	13.14 inches	17.7%
DML XII	225	11.07 inches	10.2%

SUMMARY: Gearhart charges tested consistently exceed the published API data.

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The Year In Review

In last year's 45th anniversary issue of *The Oil & Gas Producing Industry In Your State*, the overall statistics reflected the severe downturn in domestic petroleum operations begun in 1982. Data in this year's edition, however, reveals a slight recovery during 1984 in such areas as: rotary rigs, natural gas production, wellhead value, crude oil reserves, petroleum product demand and industry employment.

Despite these marginal gains, statistics for the first half of 1985 confirm that a solid turnaround has not occurred yet in the oil and gas business. Due to persistent surplus capacity, weak prices and uncertainty in the political arena, the best that can be said about 1984–1985 is that the domestic industry experienced a brief respite from its nearly four-year recession.

The focus of this publication is on the 33 states that produce crude oil and/or natural gas. In the pages to follow, it is apparent how much the petroleum industry is worth to the American economic system as well as to the individual economies of the 33 producing states. On a national level, crude oil and natural gas are by far the most valuable minerals produced, accounting for 77 percent of total dollar revenues from all mineral output. Moreover, in half of the petroleum producing states, crude oil ranked first as the most valuable mineral. Natural gas was the most valuable mineral produced in two states, New Mexico and Oklahoma.

Wellhead revenues from petroleum turned up in 1984 as shown here graphically. In 1981, crude oil value had risen to a high of $99 billion and then fell 16 percent over the next two years. Although the increase last year to $84 billion represents only a 1 percent gain, it is noteworthy that revenues climbed in spite of deteriorating oil prices. The growth in domestic crude oil production came predominantly in the lower 48 states.

Natural gas wellhead revenues rose a more significant 14 percent in 1984 to reach an all-time high of $48 billion. Both output and prices of natural gas were on the incline last year, thus accounting for the increased revenues. However, total oil and gas wellhead receipts of $132 billion in 1984 are still 5 percent below the 1981 peak of $139 billion.

One of the traditional barometers of future exploration activity is the number of seismic crews working. Having fallen continuously for the past three years, there were an average 4,655 crews working on both land and water in 1984. This is 21 percent less than the 1981 peak of 5,877 crews. Even though the national total declined, there were 17 states with more crews working in 1984 than during the previous year. The largest gains occurred in Oregon, Indiana, Colorado, Alabama and Kansas. Three states registering significantly less geophysical activity than usual include Pennsylvania, Arkansas and Mississippi.

The amount of acreage under lease for petroleum is another indicator of upcoming exploratory trends. This total has grown steadily over the past decade, now accounting for 26 percent of America's entire land area. Of the nearly 588 million acres under lease at the end of 1984, 14 percent of that amount had been found productive of crude oil and/or natural gas.

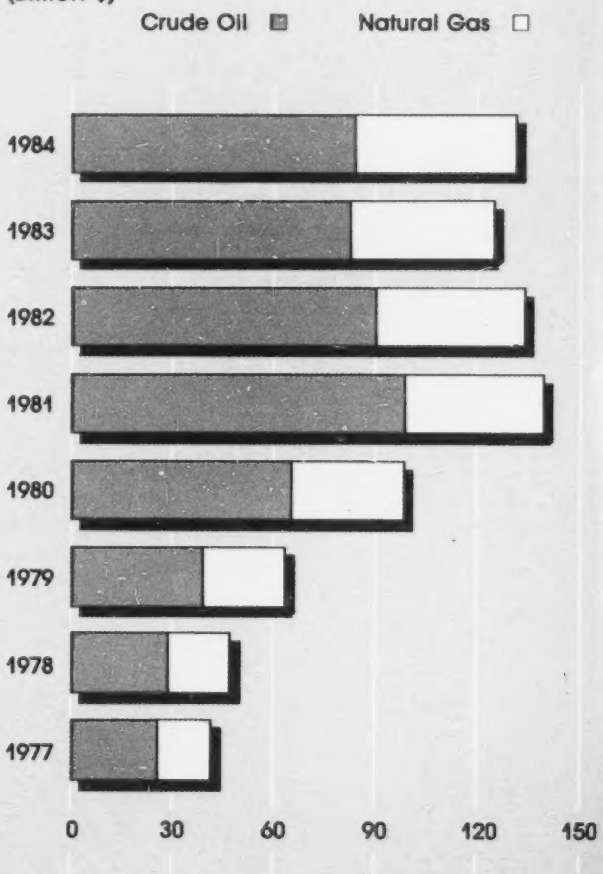
The number of rotary rigs operating increased by 9 per cent in 1984 to 2,428. This annual average is still 39 per cent below the boom year of 1981 when 3,970 rotary rigs were running. The most notable gains occurred in Appalachia and in certain Western states such as Montana, New Mexico, Utah and Wyoming.

Please note that figures for wells and footage drilled have been revised in this issue from prior years because of the change in statistical reporting methods by the American Petroleum Institute (API). Instead of publishing drilling data during the month in which wells are reported by operators, API now estimates the number of wells completed during a given time period. The new basis is intended to correct certain statistical lag problems associated with reporting delays of up to six months or more.

According to the new API system, the highest year for well completions was 1981 during which 91,600 wells were completed, mostly by independent operators. The

WELLHEAD VALUE OF U.S. PETROLEUM

(Billion $)



number has trended downward over the past three years, falling to an estimated 69,619 in 1984 which is below even the 1980 level.

The top five states in the number of wells drilled are: Texas, Oklahoma, Louisiana, Kansas and California. The list has remained about the same since 1980 except for either Ohio or Kentucky replacing California in various years. The accompanying graphs indicate which states rank the highest in oil and gas well completions during 1984.

New-field wildcat drilling has declined over 40 percent since the 1981 peak of 9,151 wells. In 1984, a total of 5,459 such wells were drilled in unproven areas where there has been no previous oil and/or gas production. States in which most of the wildcat drilling took place include: Texas, Louisiana, Michigan, Wyoming and Colorado.

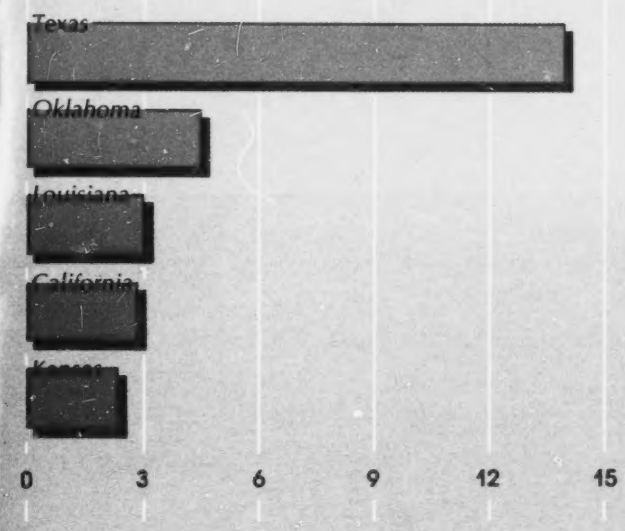
The total number of exploratory wells also have dwindled over the past three years, falling by 26 percent to 12,839 in 1984. In addition to the states mentioned above for new-field wildcats, Kansas and Kentucky rank high in the drilling of exploratory wells.

Drilling costs fell by 36 percent in 1983, the latest year for which data is available. Total expenditures for drilling and equipping wells amounted to $25 billion which translates to $371,721 per well or $83.34 per foot drilled.

Crude oil production continued to climb in 1984 for the third straight year to nearly 8.9 million barrels per day, still 8 percent below 1970 when domestic output was at its maximum. States producing the greatest quantities of crude oil were the same group as last year: Texas, Alaska, Louisiana, California and Oklahoma. The amount of crude oil produced by stripper wells also maintained its five-year growth path.

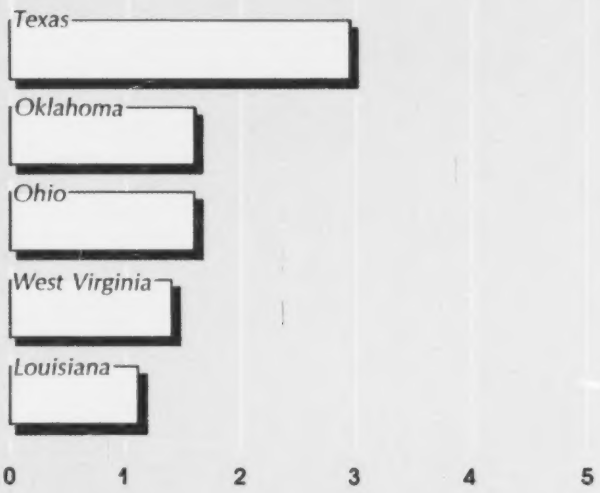
NUMBER OF OIL WELLS DRILLED

(thous. wells)



NUMBER OF GAS WELLS DRILLED

(thous. wells)



It is estimated that natural gas production increased during 1984 to 18 trillion cubic feet after declining significantly the previous year. Most natural gas output came from the following areas: Texas, Louisiana, Oklahoma, New Mexico and Wyoming. These are the same states which ranked the highest last year except that Wyoming has replaced Kansas in fifth place.

Another indicator of the contribution that petroleum makes to the national and state economies is industry-wide employment. There were 1.7 million people working in all major segments of the domestic petroleum industry during 1984. Employment reached a peak in 1981 at 1.9 million people and declined for two consecutive years. The 1984 turnaround is attributable to increases in two sectors: petroleum extraction and gasoline service stations.

The amount of severance and production taxes paid by the oil and gas industry fell for the second straight year in 1984 to $6.6 billion. Up until its peak in 1982 of $6.9 billion, these state and local tax revenues had increased continuously since IPAA began surveying the data in 1965.

In this year's edition of *The Oil & Gas Producing Industry In Your State*, several new tables have been added to include more drilling data and additional information on natural gas. Questions about the publication are welcome and every effort will be made by IPAA's Statistical Department to see that answers are provided.

—Deborah Rowell
Editor/Director of Statistics

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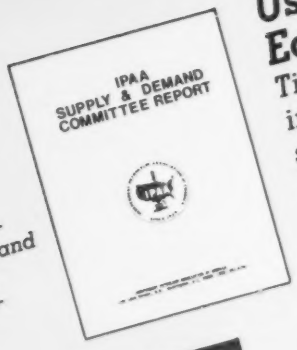

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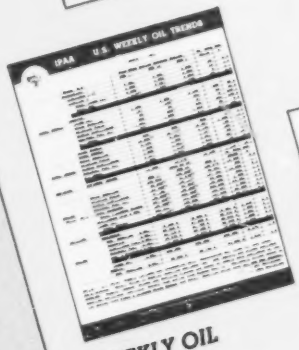

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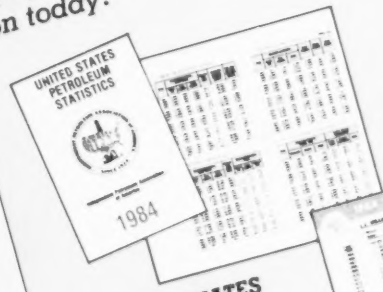

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STATE DATA SOURCES

The format of the following state pages was changed in last year's edition. So that the reader may compare current to historical data, the listing below indicates for each category the item number (shown in parentheses) used in issues prior to 1984. The editor gratefully acknowledges the following sources of information:

(1, 3)	Number of counties and land areas	*The World Almanac and Department of Interior*
(2, 4-6)	Acreage under lease	IPAA survey
(15, 18-19)	First and peak production years	*World Oil, AIME Statistical Yearbook, Oil & Gas Journal and World Petroleum Report*
(28-29)	Deepest wells drilled	*World Oil*
(31)	Cumulative wells drilled	*Oil & Gas Journal, World Petroleum Statistical Yearbook,* International Oil Scouts Association and API
(26)	Cumulative production and reserves	API, American Gas Association and EIA
(8-10)	Prices and wellhead value	EIA
(7)	Cumulative wellhead value	IPAA
(12-13)	Rank among principal minerals	Department of Interior
(14)	Taxes paid and number of employees	IPAA survey
(17)	Seismic crews	Society of Exploration Geophysicists
(27)	Rotary drilling rigs	Hughes Tool Company
(30)	Wells and footage drilled	API
(21, 23)	Producing wells	*World Oil*
(24-25)	Production and reserve position	EIA
(new)	Drilling costs	Joint Association Survey
(20)	Stripper wells	Interstate Oil Compact Commission and National Stripper Well Association

ENERGY CONVERSIONS

One barrel of crude oil
- 42 gallons
- 5,800,000 BTU's of energy
- 5,614 cubic feet of natural gas
- 0.22 ton of bituminous coal

One cubic foot of natural gas
- 7.48 gallons
- 1,032 BTU's of energy
- 0.000178 barrel of oil
- 0.000040 ton of bituminous coal

One short ton of bituminous coal
- 2,000 pounds
- 26,200,000 BTU's of energy
- 4.52 barrels of crude oil
- 25,314 cubic feet of natural gas

One metric ton of crude oil
- 2,204 pounds
- 7.46 barrels of domestic crude oil
- 6.99 barrels of foreign crude oil

One cubic meter of natural gas
- 35.314 cubic feet

ABBREVIATIONS

bbl.	-	barrel	ft.	-	foot
b/d	-	barrels per day	gal.	-	gallon
Mcf	-	thousand cubic feet	mft.	-	manufacturing
MMcf	-	million cubic feet	BTU	-	British Thermal Unit
Bcf	-	billion cubic feet	NGL	-	Natural Gas Liquids
Tcf	-	trillion cubic feet	LPG	-	Liquefied Petroleum Gases
thous.	-	thousand	EIA	-	Energy Information Administration
mill.	-	million	API	-	American Petroleum Institute

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ECONOMIC POLICY — studies a multiplicity of economic and financial factors affecting the domestic oil and gas industry and recommends policy.

ENVIRONMENT AND SAFETY — studies and reports on safety, health and environmental problems, the activities of OSHA, the EPA, and recommends Association policy action.

NATURAL GAS — studies problems of natural gas production and recommends policies and courses of action.

PUBLIC LANDS — studies and comments on legislation and regulations affecting exploration for and the development of oil and natural gas on government owned lands.

TAX — studies and recommends policies and actions on federal tax issues pertaining to oil and gas production.

Technical Committees

COST STUDY — analyzes cost of finding, developing and producing oil and gas.

OIL RECOVERY — studies and reports on the results of primary, secondary, and enhanced oil recovery techniques applied in the production of crude oil.

SUPPLY AND DEMAND — analyzes and reports on anticipated demand for petroleum and its products and the required supply to meet this demand.

Other Committees

MEMBERSHIP — determines plans for and implements programs to increase the numerical and financial strength of the Association.

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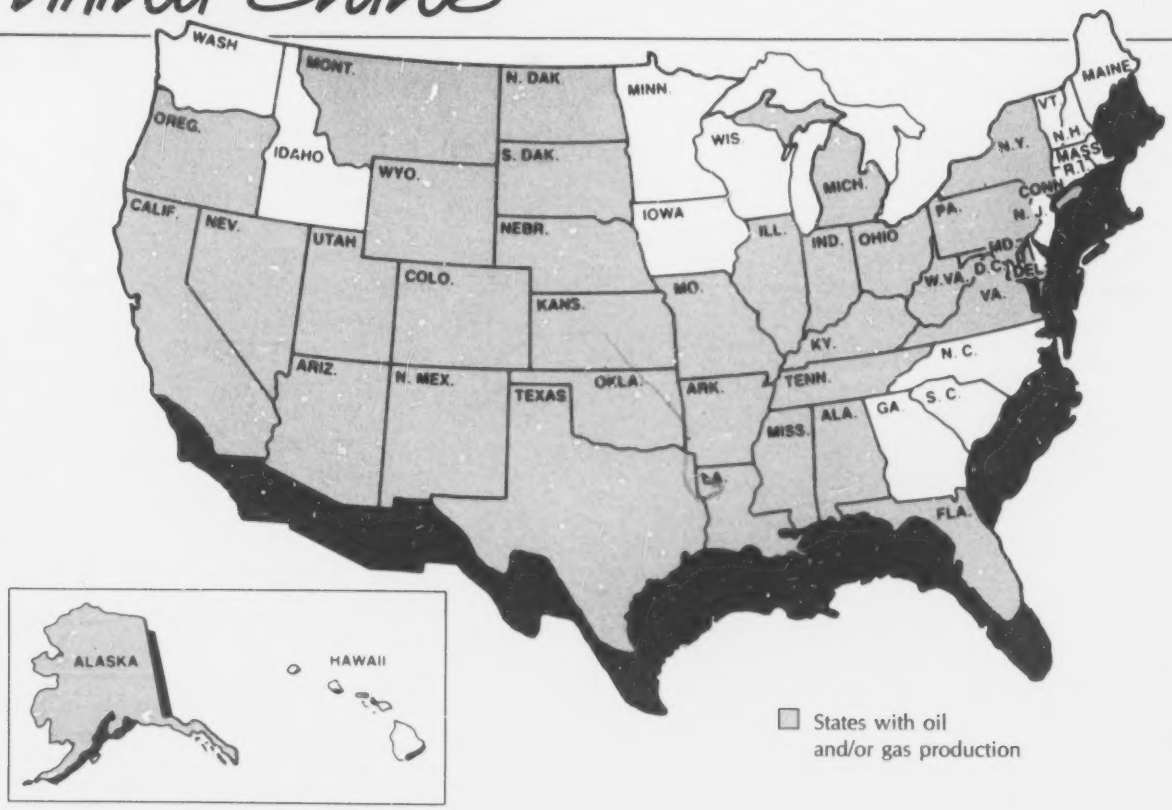


HISTORICAL INFORMATION

Number of states 50
With oil and/or gas production 33

Land area—*thous. acres* 2,265,145
Total acreage under lease 587,646
Productive of oil and/or gas 83,051
Non-productive of oil and/or gas 504,595
Percentage of total land area leased 26%
Percentage of leased acreage productive of oil and/or gas 14%

First year of production:
Crude oil 1859
Natural gas 1881

Year and amount of peak production:
Crude oil—3,517,450 *thous. bbls.* 1970
Natural gas—22,647,549 *MMcf* 1973

Deepest well drilled: *ft.*
Crude oil ..... California 18,060
Natural gas ..... Texas 26,536
Dry hole ..... Oklahoma 31,441

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	1,661,847	*57%*
Gas wells	344,990	*12%*
Dry holes	889,525	*31%*
Total	2,896,362	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	164,292	30,002	194,294	860,014
Production	136,557	22,101	158,65[illegible]	650,968

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $25.88
Natural gas—*$/Mcf* $2.63

Wellhead value of 1984 production: *thous. $*
Crude oil $84,102,132
Natural gas $47,601,440
Total $131,703,572

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $840,768,570

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 49%
Natural gas—ranked 2nd 28%

State and local severance and production taxes paid in 1984—*thous.* $6,567,182

Number of employees in the oil and gas extraction industry in 1984 609,516

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 4,655
Rotary drilling rigs active 2,428

Number of wells drilled:

	Exploratory	Development	Total
Oil	1,985	32,892	34,877
Gas	1,106	10,752	11,858
Dry	9,748	11,615	21,363
Service	—	1,521	1,521
Total	12,839	56,780	69,619

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	10,800.0	128,611.9	139,492.0
Gas	7,160.3	59,668.0	66,828.3
Dry	52,460.1	51,668.8	104,128.9
Service	—	4,406.7	4,406.7
Total	70,500.4	244,355.4	314,855.9

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 5,459
New-field wildcat footage-*thous. ft* 35,674.9

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	Not Applicable	Not Applicable
Production	Not Applicable	Not Applicable
Proved reserves	Not Applicable	Not Applicable

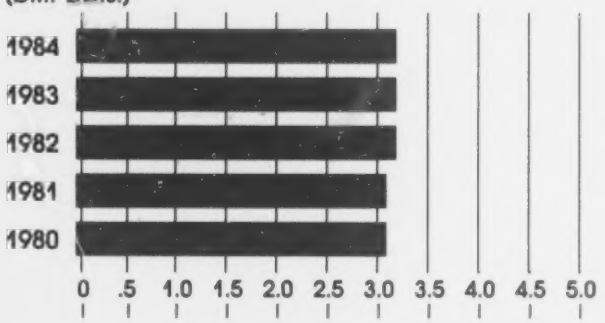
Number of producing wells as of *12/31/84:*
Crude oil 620,197
Natural gas 226,077
Total 846,274

Percentage of oil wells on artificial lift 94%

Average daily production: *(thous. b/d)*
Crude oil 8,879
NGL 1,986
Total 10,865
Natural gas marketed production—*MMcf* 18,099,407

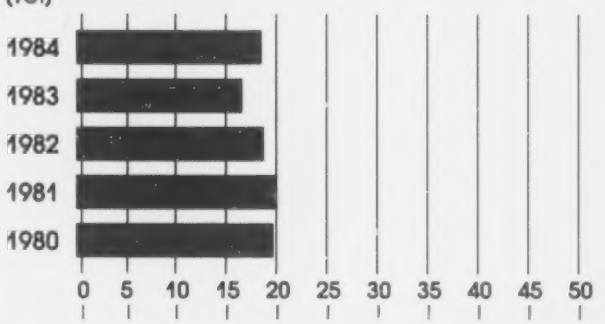
CRUDE OIL PRODUCTION

(bill. bbls.)



NATURAL GAS PRODUCTION

(Tcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	2,897	1,405	4,302
Production	3,020	725	3,745
Net annual change	−123	680	557
Proved reserves	27,735	7,901	35,636

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	2,967	13,415	16,382
Production	3,355	13,235	16,590
Net annual change	−388	180	−208
Proved reserves	61,694	147,352	209,046

Total estimated drilling cost $25,104,542,613
Cost per well $371,721
Cost per foot $83.34

Number of producing stripper wells—*12/31/83* 441,501
Number of stripper well abandonments 11,032
Crude oil stripper production—*thous. bbls.* 462,014
Percentage of crude oil produced by stripper wells 22%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 2,579,646
Secondary 2,011,163
Total 4,590,809

NATIONAL ENERGY CONTACT

Energy Information Administration
Forrestal Building, Room IF-048
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Ph. 202-252-8800

THE IPAA NEEDS YOU

The IPAA Speakers Bureau needs a few good people. Producers and those active in our industry who can speak to the public on our issues and help us get crucial points across to America's media.

Since 1976 the IPAA Speakers Bureau has trained more than 200 producers to meet this challenge. Since then, we have collectively visited nearly every major radio and television station and newspaper in this country. And many of them more than once.

The efforts of the Speakers Bureau alone in 1983 helped persuade editorial writers and directors to support natural gas decontrol. Those efforts resulted in newspaper editorializing in favor of decontrol by a margin of better than 4 to 1.

But today there is a demand for more speakers and some fresh blood. We need people who can travel or devote time to visit media outlets and groups in their hometowns. Our needs are particularly great in the east, midwest, south and west coast.

If you are interested, can donate a few days a year to those efforts and are willing to pay the expenses involved in travel and training, IPAA wants to bring you on board this successful venture.

In the next few months, IPAA will sponsor a communications training program featuring Arnold Zenker, nationally acclaimed media consultant. Zenker's and IPAA's efforts were featured early this year on CBS' "60 Minutes." The two-day intensive workshop will train you in all aspects of communication. The training will not only enable you to be a spokesperson for your industry but will greatly improve your communications techniques within your own company or business. Dates will be announced soon.

Training sessions are kept small so all participants get plenty of individualized attention, and you will learn by seeing yourself on videotape.

If you want to become part of this effort please send the attached coupon back today. An IPAA Speakers Bureau representative will contact you shortly.

I am interested in joining the IPAA Speakers Bureau. Please get back to me with more information on the upcoming Zenker training program.

Name _____

Business _____

Address _____

City _____ State _____ Zip _____

Phone ( ) _____

DRILLING PROFITABILITY #1

How to read between the lines of a Hughes Bit Record.

Everyone uses bit records to determine bits and days—but you can also get a lot of valuable information by reading between the lines. In fact, some customers say the detailed information in Hughes bit records is every bit as valuable as the bits themselves. For example:

Dulls. You'll find that Hughes bit records give you an exceptionally accurate picture of offset bit runs and dull conditions. "We may look at several records and see that one well used six bits and the others eight or nine," one customer notes. "So we'll check the dull notations. Maybe we find 'off center wear' or 'broken heel teeth'. We know that better operating practices can get us to TD more economically."

Formation data. Many customers check Hughes Bit Records for the depth and thickness of formations. One contractor found offset data showing that either five steel tooth or two carbide bits were needed to drill 5,000 feet of brittle shale. He saved at least one trip by using a single PDC bit through the shale.

Mud properties. Another Hughes customer won a very competitive bid after analyzing the mud properties in offset bit records. A relatively low water loss, 10 ppg system had been used, when he knew he could safely drill with fresh water. The faster penetration rate he achieved saved two full days.

Special notations. While comparing bit records, you might see one well that took six days longer than another drilled to the same depth in the same area. Check for special notations. You may find one that says "reaming" or "stuck pipe"—a clue that this may be a problem area. On the other hand, it could simply show that drill stem testing took the extra days, so there's no problem.

These are just a few of the ways Hughes Bit Records—together with our bits and bit programs—can keep your bidding more competitive and your drilling more efficient.

Your Hughes man can help you reduce your cost per foot—by helping you read between the lines. Call him today.

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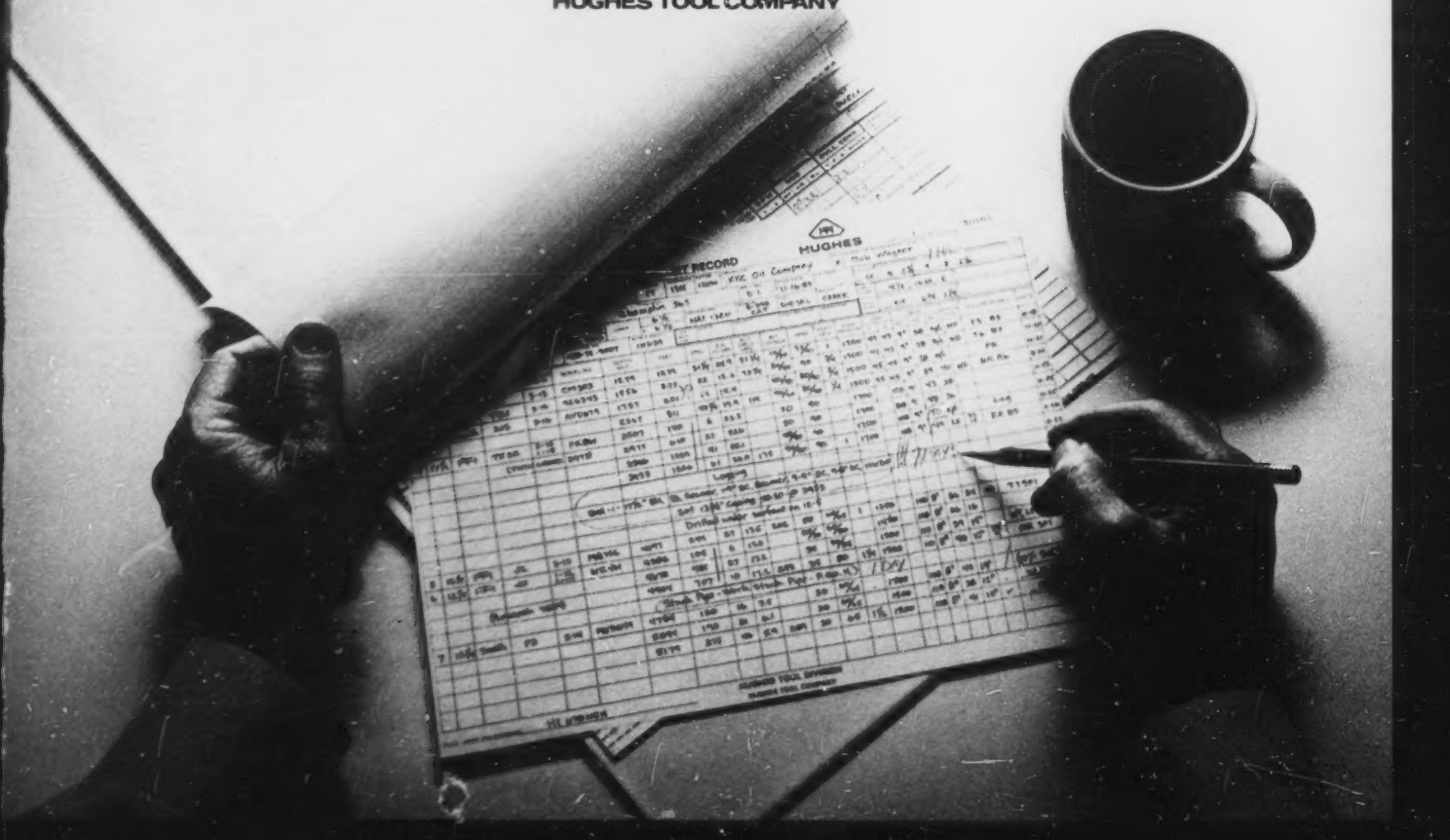
HUGHES TOOL DIVISION
HUGHES TOOL COMPANY



Alabama

HISTORICAL INFORMATION

Number of counties 67
With oil and/or gas production 16

Land area—*thous. acres* 32,491
Total acreage under lease 9,182
Productive of oil and/or gas 316
Non-productive of oil and/or gas 8,866
Percentage of total land area leased 28%
Percentage of leased acreage productive of oil and/or gas 3%

First year of production:
Crude oil 1944
Natural gas 1904

Year and amount of peak production:
Crude oil—22,153 *thous. bbls.* 1980
Natural gas—119,334 *MMcf* 1981

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 21,650
Dry hole 21,859

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	864	23%
Gas wells	654	17%
Dry holes	2,317	60%
Total	3,835	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	292	323	615	1,416
Production	241	107	348	563

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $29.39
Natural gas—*$/Mcf* $2.75

Wellhead value of 1984 production: *thous. $*
Crude oil $582,040
Natural gas $239,393
Total $821,433

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $4,379,520

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 2nd 27%
Natural gas—ranked 3rd 11%

State and local severance and production taxes paid in 1984—*thous. $* $114,086

Number of employees in the oil and gas extraction industry in 1984 1,872

1984 INDUSTRY STATISTICS

Seismic crew months worked 165
Rotary drilling rigs active 15
Number of wells drilled:

	Exploratory	Development	Total
Oil	3	14	17
Gas	16	59	75
Dry	87	85	172
Service	—	0	0
Total	106	158	264

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	43.8	127.6	171.4
Gas	71.5	235.7	307.3
Dry	532.1	432.9	965.0
Service	—	0	0
Total	647.5	796.2	1,443.7

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 106
New-field wildcat footage-*thous. ft* 647.5

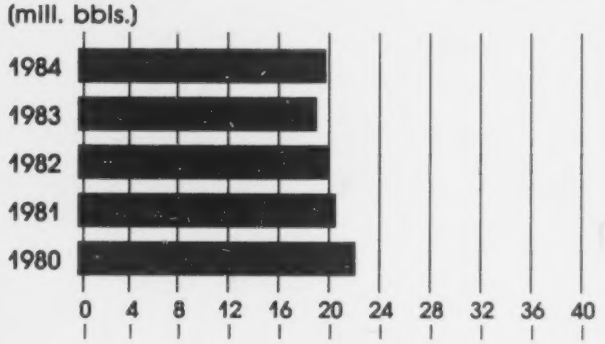
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	26th	17th
Production	16th	16th
Proved reserves	19th	18th

Number of producing wells as of *12/31/84:*
Crude oil 759
Natural gas 664
Total 1,423

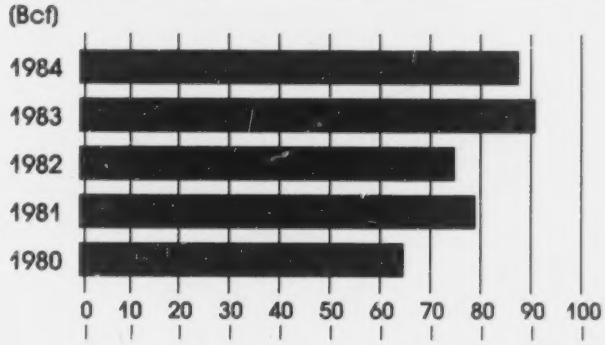
Percentage of oil wells on artificial lift 93%

Average daily production: *(thous. b/d)*
Crude oil 54
NGL 41
Total 95
Natural gas marketed production—*MMcf.* 87,052

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	4	38	42
Production	7	15	22
Net annual change	–3	23	20
Proved reserves	51	216	267

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	9	221	230
Production	5	68	73
Net annual change	4	153	157
Proved reserves	31	822	853

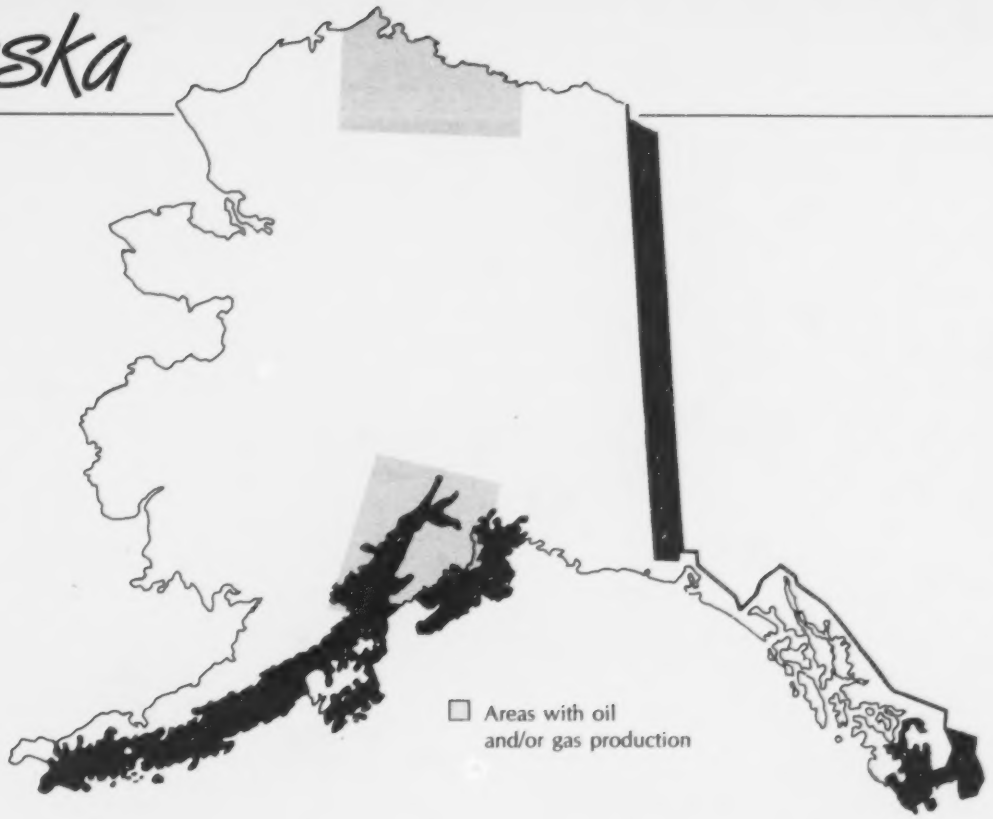
Total estimated drilling cost $147,677,845
Cost per well $723,911
Cost per foot $127.65

Number of producing stripper wells—*12/31/83* 95
Number of stripper well abandonments 1
Crude oil stripper production—*thous. bbls.* 173
Percentage of crude oil produced by stripper wells 2%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 460
Secondary 18
Total 478

STATE ENERGY CONTACT

Alabama State Oil and Gas Board
P.O. Drawer O
University, AL 35486
Ph. 205-349-2852

Alaska



HISTORICAL INFORMATION

Number of counties ..... Not Applicable
With oil and/or gas production ..... Not Applicable

Land area—*thous. acres* 365,333
Total acreage under lease 11,240
Productive of oil and/or gas 665
Non-productive of oil and/or gas 10,575
Percentage of total land area leased 3%
Percentage of leased acreage productive of oil and/or gas 6%

First year of production:
Crude oil 1905
Natural gas 1945

Year and amount of peak production:
Crude oil—630,401 *thous. bbls.* 1984
Natural gas—279,739 *MMcf* 1984

Deepest well drilled: *ft.*
Crude oil 14,952
Natural gas ..... Unavailable
Dry hole 20,335

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	1,363	*70%*
Gas wells	115	*6%*
Dry holes	468	*24%*
Total	1,946	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	11,657	16	11,673	37,193
Production	4,350	8	4,358	2,902

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $17.04
Natural gas—*$/Mcf* $1.45

Wellhead value of 1984 production: *thous. $*
Crude oil $10,742,033
Natural gas $405,622
Total $11,147,655

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $59,339,367

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 95%
Natural gas—ranked 2nd 4%

State and local severance and production taxes paid in 1984—*thous. $* $1,393,100

Number of employees in the oil and gas extraction industry in 1984 8,159

1984 INDUSTRY STATISTICS

Seismic crew months worked 79
Rotary drilling rigs active 14

Number of wells drilled:

	Exploratory	Development	Total
Oil	1	142	145
Gas	0	0	0
Dry	1	2	3
Service	—	10	10
Total	2	154	158

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	10.9	1,207.6	1,218.6
Gas	0	0	0
Dry	13.7	10.9	24.6
Service	—	87.5	87.5
Total	24.6	1,306.0	1,330.6

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 2
New-field wildcat footage-*thous. ft* 24.6

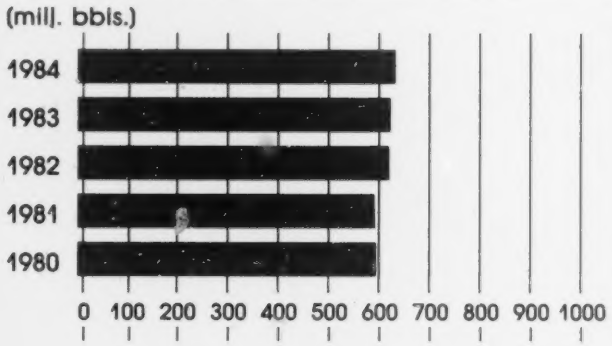
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	19th	Not Applicable
Production	2nd	8th
Proved reserves	2nd	3rd

Number of producing wells as of *12/31/84:*
Crude oil 640
Natural gas 78
Total 718

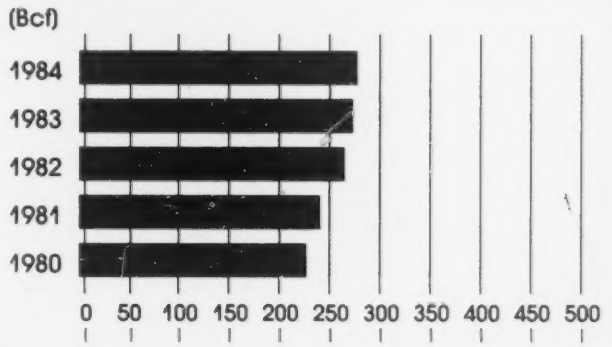
Percentage of oil wells on artificial lift 42%

Average daily production: *(thous. b/d)*
Crude oil 1,722
NGL 0
Total 1,722
Natural gas marketed production—*MMcf.* 279,739

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	566	–1	565
Production	665	0	665
Net annual change	–99	–1	–100
Proved reserves	7,307	8	7,315

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	–326	–112	–438
Production	80	193	273
Net annual change	–406	–305	–711
Proved reserves	30,408	3,883	34,291

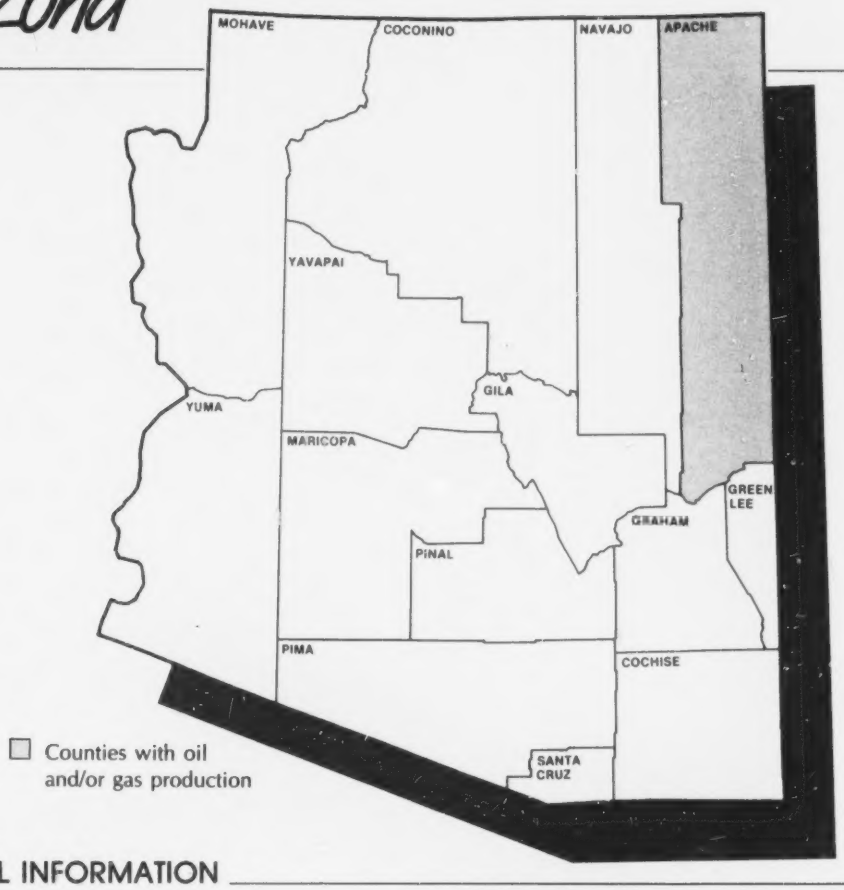
Total estimated drilling cost $658,010,270
Cost per well $3,576,143
Cost per foot $364.19

Number of producing stripper wells—*12/31/83* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of crude oil produced by stripper wells ..... N/A
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 0
Total 0

STATE ENERGY CONTACT

Alaska Oil and Gas Conservation Committee
3001 Porcupine Drive
Anchorage, AK 99501
Ph. 907-279-1433

Arizona



HISTORICAL INFORMATION

Number of counties 14
With oil and/or gas production 1

Land area—*thous. acres* 72,645
Total acreage under lease 23,731
Productive of oil and/or gas 6
Non-productive of oil and/or gas 23,725
Percentage of total land area leased 33%
Percentage of leased acreage productive of oil and/or gas 0%

First year of production:
Crude oil 1954
Natural gas 1955

Year and amount of peak production:
Crude oil—3,370 *thous. bbls.* 1968
Natural gas—3,161 *MMcf* 1966

Deepest well drilled: *ft.*
Crude oil 6,793
Natural gas ..... Not Applicable
Dry hole 18,013

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	53	*11%*
Gas wells	35	*7%*
Dry holes	386	*82%*
Total	474	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.00
Natural gas—*$/Mcf* $2.70

Wellhead value of 1984 production: *thous. $*
Crude oil $5,805
Natural gas $405
Total $6,210

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $75,641

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 9th 0.31%
Natural gas—ranked 13th 0.02%

State and local severance and production taxes paid in 1984—*thous. $* ..... Unavailable

Number of employees in the oil and gas extraction industry in 1984 162

1984 INDUSTRY STATISTICS

Seismic crew months worked 7
Rotary drilling rigs active 0

Number of wells drilled:

	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	2	0	2
Service	—	0	0
Total	2	0	2

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	4.0	0	4.0
Service	—	0	0
Total	4.0	0	4.0

Number of new-field wildcats drilled 2
New-field wildcat footage-*thous. ft* 4.0

State-wide rank in:	Not Applicable	Not Applicable
Wells drilled	Not Applicable	Not Applicable
Production	30th	28th
Proved reserves	Unavailable	Unavailable

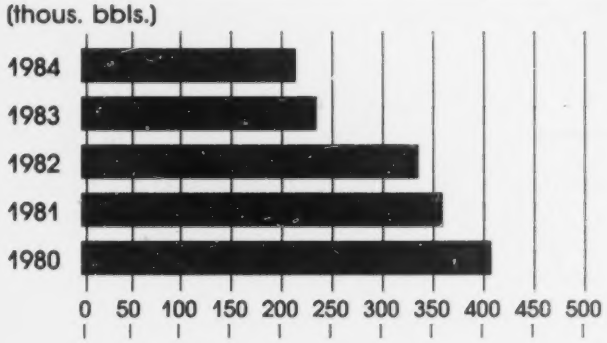
Number of producing wells as of *12/31/84:*
Crude oil 31
Natural gas ..... Unavailable
Total 31

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 1
NGL 0
Total 1
Natural gas marketed production—*MMcf.* 150

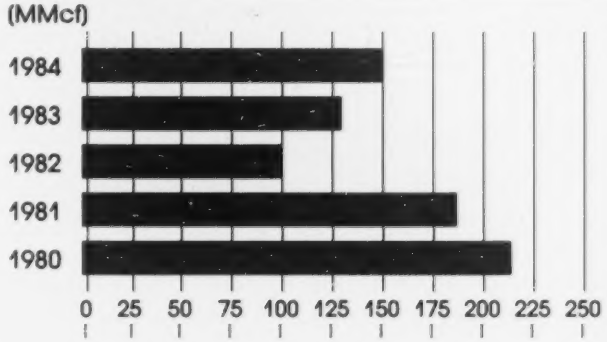
CRUDE OIL PRODUCTION

(thous. bbls.)



NATURAL GAS PRODUCTION

(MMcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

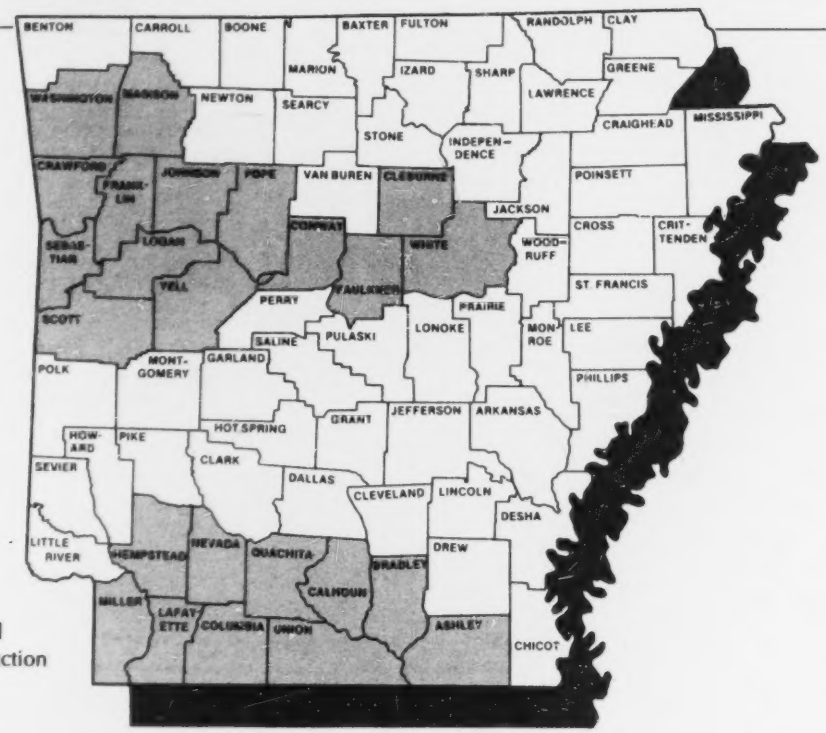
Number of producing stripper wells—*12/31/83* 17
Number of stripper well abandonments 1
Crude oil stripper production—*thous. bbls.* 26
Percentage of crude oil produced by stripper wells 11%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 20
Secondary 0
Total 20

STATE ENERGY CONTACT

Arizona Oil and Gas Conservation Commission
1645 West Jefferson Street, Suite 420
Phoenix, AZ 85007
Ph. 602-255-5161

Arkansas



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 75
With oil and/or gas production 24

Land area—*thous. acres* 33,330
Total acreage under lease 12,998
Productive of oil and/or gas 1,215
Non-productive of oil and/or gas 11,783
Percentage of total land area leased 39%
Percentage of leased acreage productive of oil and/or gas 9%

First year of production:
Crude oil 1921
Natural gas 1889

Year and amount of peak production:
Crude oil—77,398 *thous. bbls.* 1925
Natural gas—181,351 *MMcf* 1970

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 11,195
Dry hole 17,349

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	17,170	*53%*
Gas wells	2,981	9%
Dry holes	12,028	*38%*
Total	32,179	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	1,672	89	1,761	6,180
Production	1,552	78	1,630	4,099

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.15
Natural gas—*$/Mcf* $2.50

Wellhead value of 1984 production: *thous. $*
Crude oil $527,250
Natural gas $409,750
Total $937,000

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $6,370,334

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 44%
Natural gas—ranked 2nd 35%

State and local severance and production taxes paid in 1984—*thous. $* $21,329

Number of employees in the oil and gas extraction industry in 1984 4,044

1984 INDUSTRY STATISTICS

Seismic crew months worked 40
Rotary drilling rigs active 26
Number of wells drilled:

	Exploratory	Development	Total
Oil	9	274	283
Gas	3	211	214
Dry	116	220	336
Service	—	19	19
Total	128	724	852

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	57.7	1,072.2	1,129.9
Gas	10.4	1,176.8	1,187.2
Dry	632.0	1,070.9	1,702.8
Service	—	83.5	83.5
Total	700.1	3,403.4	4,103.4

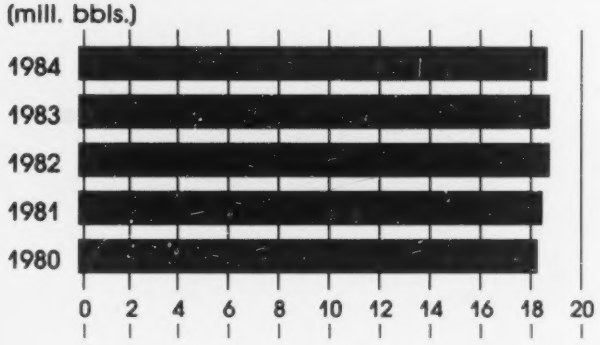
(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 119
New-field wildcat footage-*thous. ft* 651.0

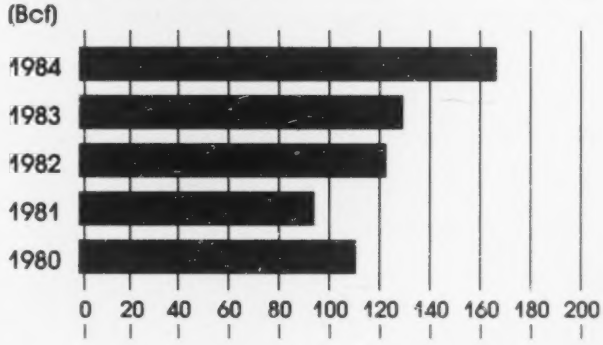
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	17th	12th
Production	17th	10th
Proved reserves	17th	12th

Number of producing wells as of *12/31/84:*
Crude oil 9,490
Natural gas 2,492
Total 11,982
Percentage of oil wells on artificial lift 98%
Average daily production: *(thous. b/d)*
Crude oil 51
NGL 3
Total 54
Natural gas marketed production--*MMcf.* 163,900

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	31	–3	28
Production	18	1	19
Net annual change	13	–4	9
Proved reserves	120	11	131

Natural gas reserve position as of *12/31/83:*

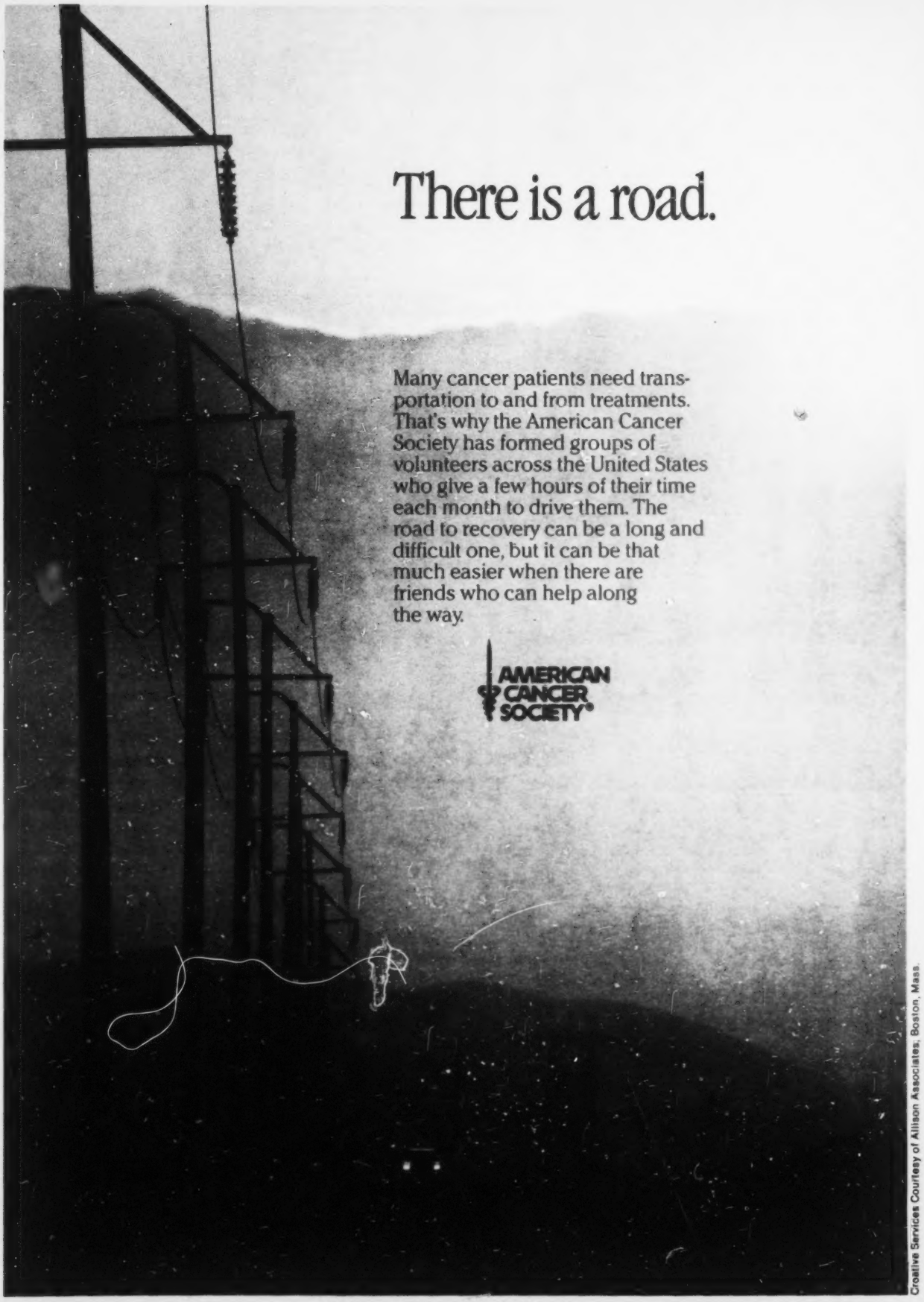
(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	31	283	314
Production	11	196	207
Net annual change	20	87	107
Proved reserves	194	1,887	2,081

Total estimated drilling cost $216,518,686
Cost per well $253,238
Cost per foot $54.02

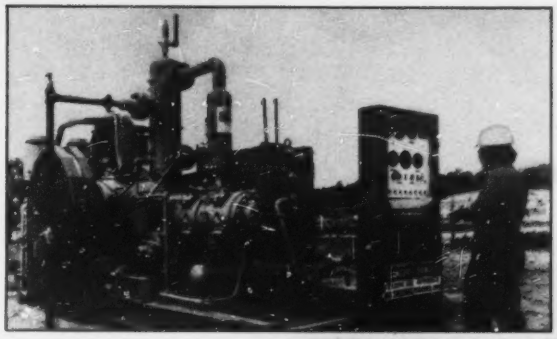
Number of producing stripper wells—*12/31/83* 7,218
Number of stripper well abandonments 39
Crude oil stripper production—*thous. bbls.* 7,118
Percentage of crude oil produced by stripper wells 35%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 212,248
Secondary 32,871
Total 245,119

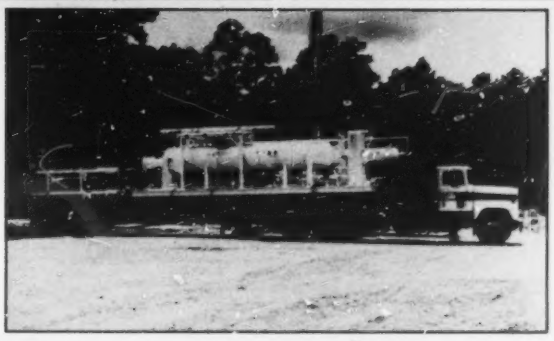
STATE ENERGY CONTACT

Arkansas Oil and Gas Commission
314 East Oak Street
El Dorado, AR 71730
Ph. 501-862-4965


There is a road.
Many cancer patients need transportation to and from treatments. That's why the American Cancer Society has formed groups of volunteers across the United States who give a few hours of their time each month to drive them. The road to recovery can be a long and difficult one, but it can be that much easier when there are friends who can help along the way.
AMERICAN CANCER SOCIETY®
Creative Services Courtesy of Allison Associates, Boston, Mass.

This space contributed as a public service.





Your best buy on this equipment is probably an HRM rental.

Your best profit is made in production. And, it makes sense to conserve your capital for that purpose. With the continuous changes in the oil and gas industry, it's just not normally good economics to tie up capital in equipment that may be in full use for under 3-5 years.

With an HRM rental plan, when your needs change, or when a piece of equipment needs major repair, you just change it out. Get the equipment you need for today's conditions — without being locked in for years.

You get an immediate cash flow benefit by eliminating any down payment for needed equipment. Then, your rental payment comes out of pretax dollars for an added boost to cash flow. You don't tie up your credit lines — and you keep your capital working for you where it helps make you the most profit.

No long-term commitment. You rent from HRM on a monthly basis. And, you have options as to how much involvement you want from HRM. We'll deliver, install, service and even operate the equipment for you if you like. So, you're relieved of having to hire additional personnel for what could be a short-term operation.

You can rent virtually anything you might need: compressors, dehydrators, pumping units, gas treatment facilities for CO_2 and H_2S removal and other major surface equipment.

Check out the details. Call or write for complete information.

We help you conserve capital for what you do best.

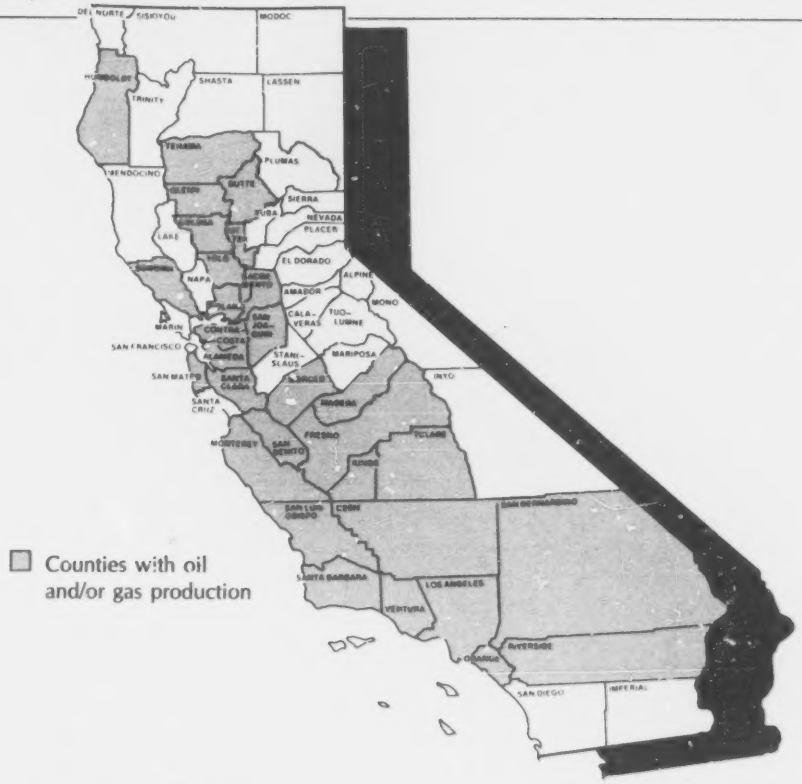
HRM

Halliburton Resource Management

A Halliburton Company

1525 Elm Street, Suite 2900,
P.O. Box 1411, Dallas, Texas 75221,
214/954-6100

California



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 58
With oil and/or gas production 30

Land area—*thous. acres* 100,031
Total acreage under lease 9,250
Productive of oil and/or gas 500
Non-productive of oil and/or gas 8,750
Percentage of total land area leased 9%
Percentage of leased acreage productive of oil and/or gas 5%

First year of production:
Crude oil 1861
Natural gas 1889

Year and amount of peak production:
Crude oil—412,020 *thous. bbls.* 1984
Natural gas—714,893 *MMcf* 1968

Deepest well drilled: *ft.*
Crude oil 18,060
Natural gas ..... Unavailable
Dry hole 22,711

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	103,086	*78%*
Gas wells	3,100	*2%*
Dry holes	25,998	*20%*
Total	132,184	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	25,316	1,325	26,641	35,968
Production	19,968	1,174	21,142	30,003

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $22.09
Natural gas—*$/Mcf* $3.00

Wellhead value of 1984 production: *thous. $*
Crude oil $9,101,522
Natural gas $1,397,742
Total $10,499,264

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $90,307,102

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 74%
Natural gas--ranked 2nd 11%

State and local severance and production taxes paid in 1984—*thous. $* $17,018

Number of employees in the oil and gas extraction industry in 1984 41,393

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 152
Rotary drilling rigs active 107
Number of wells drilled:

	Exploratory	Development	Total
Oil	19	2,834	2,853
Gas	15	70	85
Dry	139	114	253
Service	—	202	202
Total	173	3,220	3,393

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	119.9	5,500.4	5,620.2
Gas	107.6	490.8	598.4
Dry	959.9	625.4	1,585.3
Service	—	350.1	350.1
Total	1,187.4	6,966.7	8,154.0

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 90
New-field wildcat footage-*thous. ft* 640.2

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	4th	15th
Production	4th	7th
Proved reserves	3rd	8th

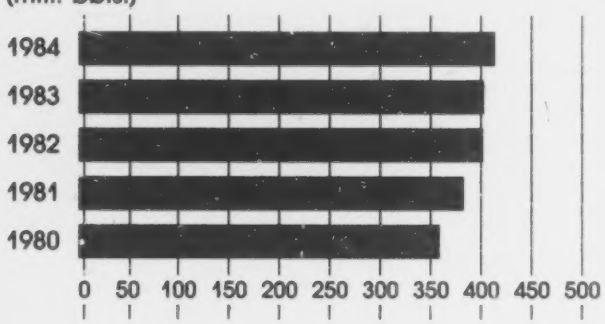
Number of producing wells as of *12/31/84:*
Crude oil 48,541
Natural gas 1,168
Total 49,709

Percentage of oil wells on artificial lift 97%

Average daily production: *(thous. b/d)*
Crude oil 1,126
NGL 33
Total 1,159
Natural gas marketed production—*MMcf.* 465,914

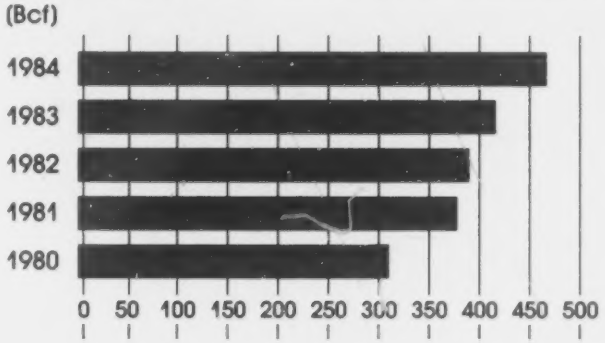
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	343	9	352
Production	400	12	412
Net annual change	–57	–3	–60
Proved reserves	5,348	151	5,499

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	308	307	615
Production	220	177	397
Net annual change	88	130	218
Proved reserves	3,965	2,000	5,965

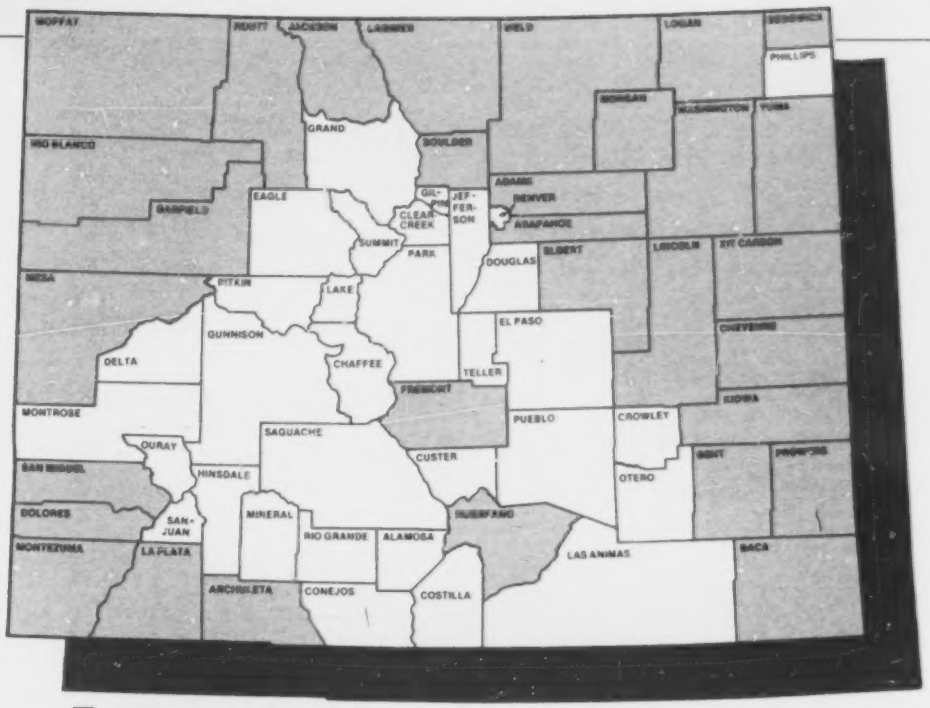
Total estimated drilling cost $1,061,459,104
Cost per well $469,257
Cost per foot $149.20

Number of producing stripper wells—*12/31/83* 26,358
Number of stripper well abandonments 578
Crude oil stripper production—*thous. bbls.* 55,993
Percentage of crude oil produced by stripper wells 14%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 208,666
Secondary 58,855
Total 267,521

STATE ENERGY CONTACT

California Department of Conservation
Division of Oil and Gas
1416 Ninth Street
Sacramento, CA 95814
Ph. 916-445-9686

Colorado



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 63
With oil and/or gas production 31

Land area—*thous. acres* 66,301
Total acreage under lease 35,531
Productive of oil and/or gas 1,509
Non-productive of oil and/or gas 34,022
Percentage of total land area leased 54%
Percentage of leased acreage productive of oil and/or gas 4%

First year of production:
Crude oil 1862
Natural gas 1893

Year and amount of peak production:
Crude oil—58,516 *thous. bbls.* 1956
Natural gas—209,892 *MMcf* 1982

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 17,632
Dry hole 19,710

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	9,729	*27%*
Gas wells	6,252	*18%*
Dry holes	19,422	*55%*
Total	35,403	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,565	334	1,899	7,443
Production	1,379	151	1,530	4,070

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.09
Natural gas—*$/Mcf* $3.20

Wellhead value of 1984 production: *thous. $*
Crude oil $810,256
Natural gas $575,952
Total $1,386,208

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $9,440,622

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 38%
Natural gas—ranked 2nd 27%

State and local severance and production taxes paid in 1984—*thous. $* $20,598

Number of employees in the oil and gas extraction industry in 1984 25,329

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 208
Rotary drilling rigs active 54

Number of wells drilled:

	Exploratory	Development	Total
Oil	87	492	579
Gas	32	406	438
Dry	368	187	555
Service	—	1	1
Total	487	1,086	1,573

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	573.7	3,216.0	3,789.7
Gas	191.0	2,346.5	2,537.5
Dry	2,069.0	959.8	3,028.9
Service	—	7.6	7.6
Total	2,833.8	6,529.9	9,363.6

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 311
New-field wildcat footage-*thous. ft* 1,775.3

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	10th	7th
Production	15th	9th
Proved reserves	14th	9th

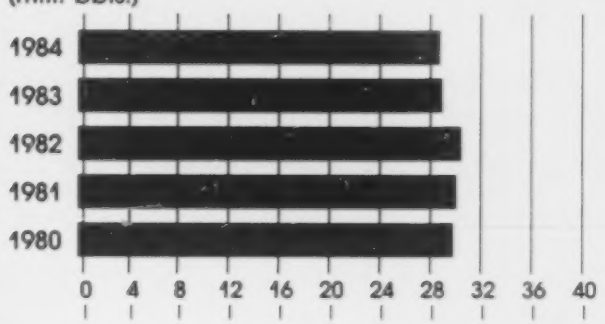
Number of producing wells as of *12/31/84:*
Crude oil 5,360
Natural gas 3,663
Total 9,023

Percentage of oil wells on artificial lift 89%

Average daily production: *(thous. b/d)*
Crude oil 79
NGL 27
Total 106
Natural gas marketed production—*MMcf.* 179,985

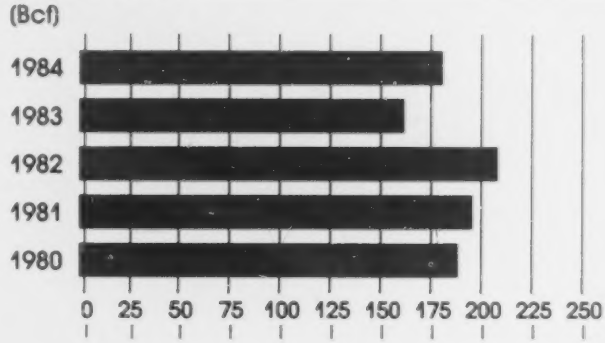
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	47	7	54
Production	30	10	40
Net annual change	17	–3	14
Proved reserves	186	183	369

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	–1	–10	–11
Production	32	135	167
Net annual change	–33	–145	–178
Proved reserves	173	3,200	3,373

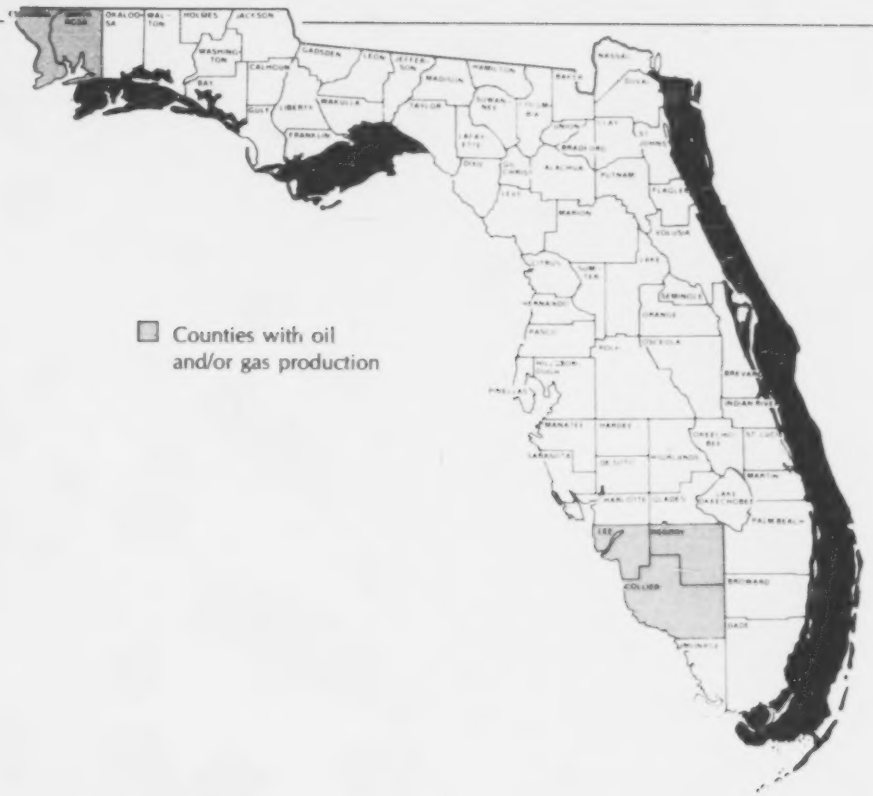
Total estimated drilling cost $421,869,231
Cost per well $301,335
Cost per foot $49.59

Number of producing stripper wells—*12/31/83* 1,861
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 3,630
Percentage of crude oil produced by stripper wells 13%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 14,693
Secondary 7,689
Total 22,382

STATE ENERGY CONTACT

Colorado Oil and Gas Conservation Commission
1313 Sherman Street, Room 721
Denver, CO 80203
Ph. 303-866-3531

Florida



HISTORICAL INFORMATION

Number of counties 67
With oil and/or gas production 5

Land area—*thous. acres* 34,658
Total acreage under lease 2,637
Productive of oil and/or gas 37
Non-productive of oil and/or gas 2,600
Percentage of total land area leased 8%
Percentage of leased acreage productive of oil and/or gas 1%

First year of production:
Crude oil 1943
Natural gas 1943

Year and amount of peak production:
Crude oil—47,536 *thous. bbls.* 1978
Natural gas—51,595 *MMcf* 1978

Deepest well drilled: *ft.*
Crude oil 16,130
Natural gas ..... Not Applicable
Dry hole 18,670

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	259	28%
Gas wells	4	0%
Dry holes	665	72%
Total	928	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	614	67	681	510
Production	536	56	592	446

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $31.00
Natural gas—*$/Mcf* $2.50

Wellhead value of 1984 production: *thous. $*
Crude oil $448,322
Natural gas $32,453
Total $480,775

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $7,306,472

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 26%
Natural gas—ranked 4th 2%

State and local severance and production taxes paid in 1984—*thous. $* $24,521

Number of employees in the oil and gas extraction industry in 1984 1,081

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 10
Rotary drilling rigs active 4
Number of wells drilled:

	Exploratory	Development	Total
Oil	0	4	4
Gas	0	0	0
Dry	8	1	9
Service	—	0	0
Total	8	5	13

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	0	53.5	53.5
Gas	0	0	0
Dry	105.0	12.0	116.9
Service	—	0	0
Total	105.0	65.5	170.4

(Note: Totals may not add due to rounding.)

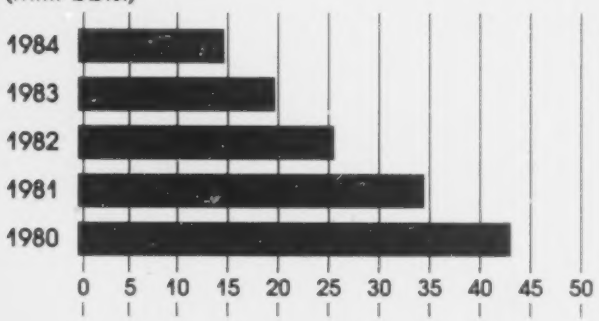
Number of new-field wildcats drilled 8
New-field wildcat footage-*thous. ft* 105.0

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	28th	Not Applicable
Production	19th	22nd
Proved reserves	18th	23rd

Number of producing wells as of *12/31/84:*
Crude oil 138
Natural gas ..... Unavailable
Total 138
Percentage of oil wells on artificial lift 59%
Average daily production: *(thous. b/d)*
Crude oil 40
NGL 11
Total 51
Natural gas marketed production—*MMcf.* 12,981

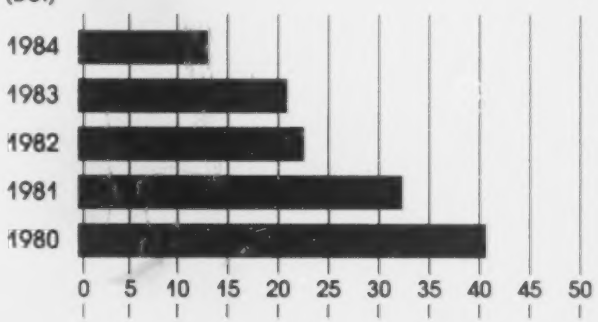
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83.*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	2	–2	0
Production	21	4	25
Net annual change	–19	–6	–25
Proved reserves	78	11	89

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	1	0	1
Production	23	0	23
Net annual change	–22	—	–22
Proved reserves	64	0	64

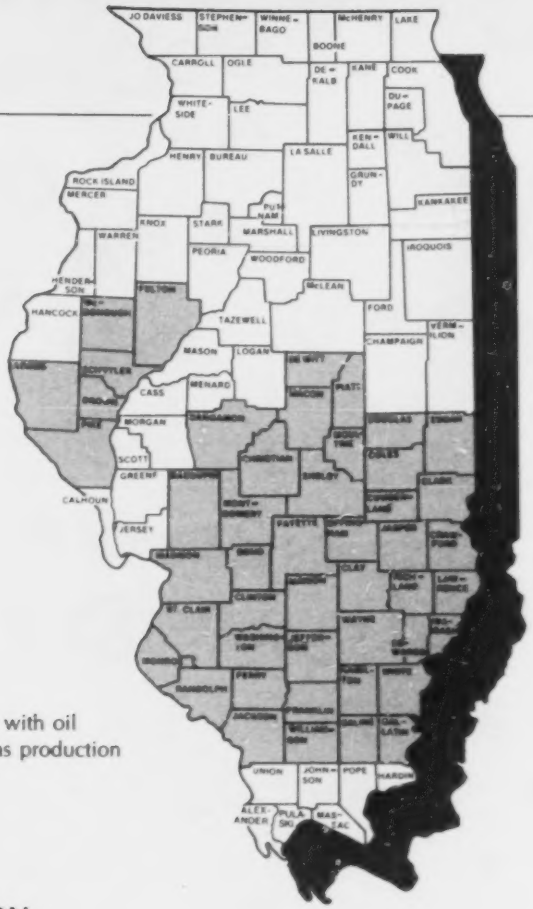
Total estimated drilling cost $47,769,411
Cost per well $2,653,856
Cost per foot $201.02

Number of producing stripper wells—*12/31/83* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of crude oil produced by stripper wells ..... N/A
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 0
Total 0

STATE ENERGY CONTACT

Florida Bureau of Geology
Division of Resource Management
903 West Tennessee Street
Tallahasee, FL 32304
Ph. 904-488-4191

Illinois



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	102
With oil and/or gas production	47
Land area—*thous. acres*	35,613
Total acreage under lease	4,735
Productive of oil and/or gas	706
Non-productive of oil and/or gas	4,029
Percentage of total land area leased	13%
Percentage of leased acreage productive of oil and/or gas	15%
First year of production:	
Crude oil	1889
Natural gas	1882
Year and amount of peak production:	
Crude oil—147,647 *thous. bbls.*	1940
Natural gas—18,137 *MMcf*	1944

Deepest well drilled: *ft.*

Crude oil	5,405
Natural gas	Unavailable
Dry hole	14,942

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	75,855	*61%*
Gas wells	1,448	*1%*
Dry holes	47,336	*38%*
Total	124,639	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	3,320	Unavailable	3,320	Unavailable
Production	3,185	Unavailable	3,185	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$28.76
Natural gas—*$/Mcf*	$2.90
Wellhead value of 1984 production: *thous. $*	
Crude oil	$830,244
Natural gas	$2,685
Total	$832,929
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$12,795,625

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 2nd	29%
Natural gas—ranked 8th	0.09%
State and local severance and production taxes paid in 1984—*thous. $*	Unavailable
Number of employees in the oil and gas extraction industry in 1984	7,098

1984 INDUSTRY STATISTICS

Seismic crew months worked 13
Rotary drilling rigs active 41

Number of wells drilled:

	Exploratory	Development	Total
Oil	78	1,173	1,251
Gas	4	13	17
Dry	399	545	944
Service	—	41	41
Total	481	1,772	2,253

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	209.4	3,113.6	3,323.1
Gas	3.6	8.2	11.8
Dry	842.3	1,530.0	2,371.7
Service	—	69.2	69.2
Total	1,055.4	4,721.0	5,775.9

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 167
New-field wildcat footage-*thous. ft* 214.8

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	7th	23rd
Production	14th	27th
Proved reserves	15th	Unavailable

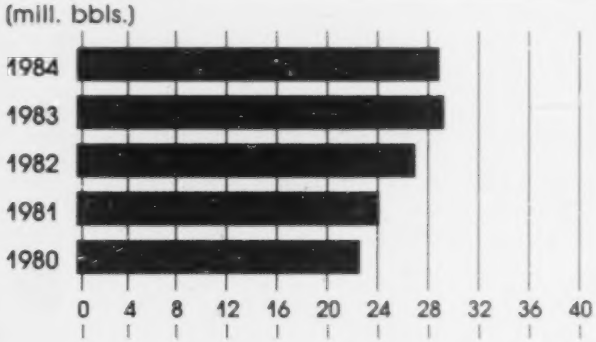
Number of producing wells as of *12/31/84:*
Crude oil 28,920
Natural gas 157
Total 29,077

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 79
NGL 0
Total 79
Natural gas marketed production—*MMcf.* 926

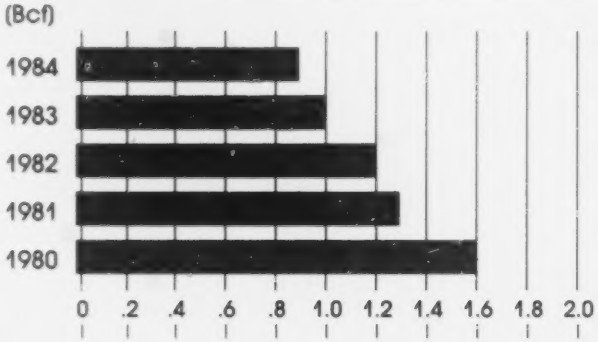
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	4	Unavailable	4
Production	19	—	19
Net annual change	–15	—	–15
Proved reserves	135	Unavailable	135

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost $203,056,111
Cost per well $75,318
Cost per foot $31.74

Number of producing stripper wells—*12/31/83* 28,566
Number of stripper well abandonments 145
Crude oil stripper production—*thous. bbls.* 25,890
Percentage of crude oil produced by stripper wells 89%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 53,753
Secondary 64,127
Total 117,880

STATE ENERGY CONTACT

Illinois Department of Mines and Minerals
704 William G. Stratton Building
Springfield, IL 62706
Ph. 217-782-7756

Indiana

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	92
With oil and/or gas production	40
Land area—*thous. acres*	22,996
Total acreage under lease	8,963
Productive of oil and/or gas	7,926
Non-productive of oil and/or gas	1,037
Percentage of total land area leased	39%
Percentage of leased acreage productive of oil and/or gas	88%
First year of production:	
Crude oil	1889
Natural gas	1885
Year and amount of peak production:	
Crude oil—12,823 *thous. bbls.*	1953
Natural gas—2,241 *MMcf*	1936

Deepest well drilled: *ft.*	
Crude oil	4,508
Natural gas	Unavailable
Dry hole	7,980

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	37,676	59%
Gas wells	2,118	3%
Dry holes	24,092	38%
Total	63,886	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	519	Unavailable	519	Unavailable
Production	485	Unavailable	485	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$28.72
Natural gas—*$/Mcf*	$3.38
Wellhead value of 1984 production: *thous. $*	
Crude oil	$158,707
Natural gas	$372
Total	$159,079
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$2,150,551

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 2nd	13%
Natural gas—ranked 8th	0.03%
State and local severance and production taxes paid in 1984—*thous. $*	$1,546
Number of employees in the oil and gas extraction industry in 1984	935

1984 INDUSTRY STATISTICS

Seismic crew months worked 13
Rotary drilling rigs active 7

Number of wells drilled:

	Exploratory	Development	Total
Oil	70	338	408
Gas	8	13	21
Dry	323	165	488
Service	—	62	62
Total	401	578	979

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	150.1	578.4	728.5
Gas	11.1	16.2	27.3
Dry	652.6	295.9	948.5
Service	—	88.5	88.5
Total	813.8	979.0	1,792.8

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 95
New-field wildcat footage-*thous. ft* 166.3

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	12th	22nd
Production	22nd	29th
Proved reserves	24th	Unavailable

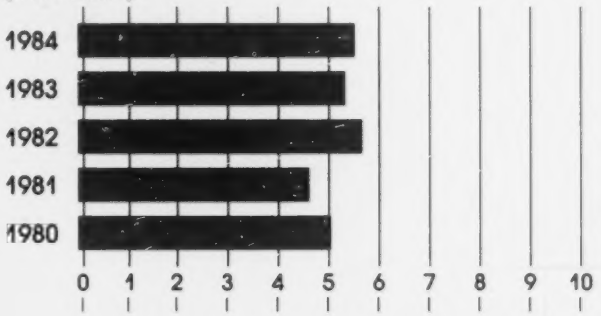
Number of producing wells as of *12/31/84:*
Crude oil 6,792
Natural gas 1,194
Total 7,986

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 15
NGL 0
Total 15
Natural gas marketed production—*MMcf* 110

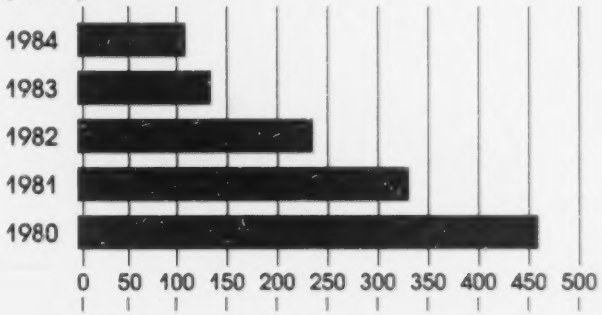
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(MMcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	11	Unavailable	11
Production	5	—	5
Net annual change	6	—	6
Proved reserves	34	Unavailable	34

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

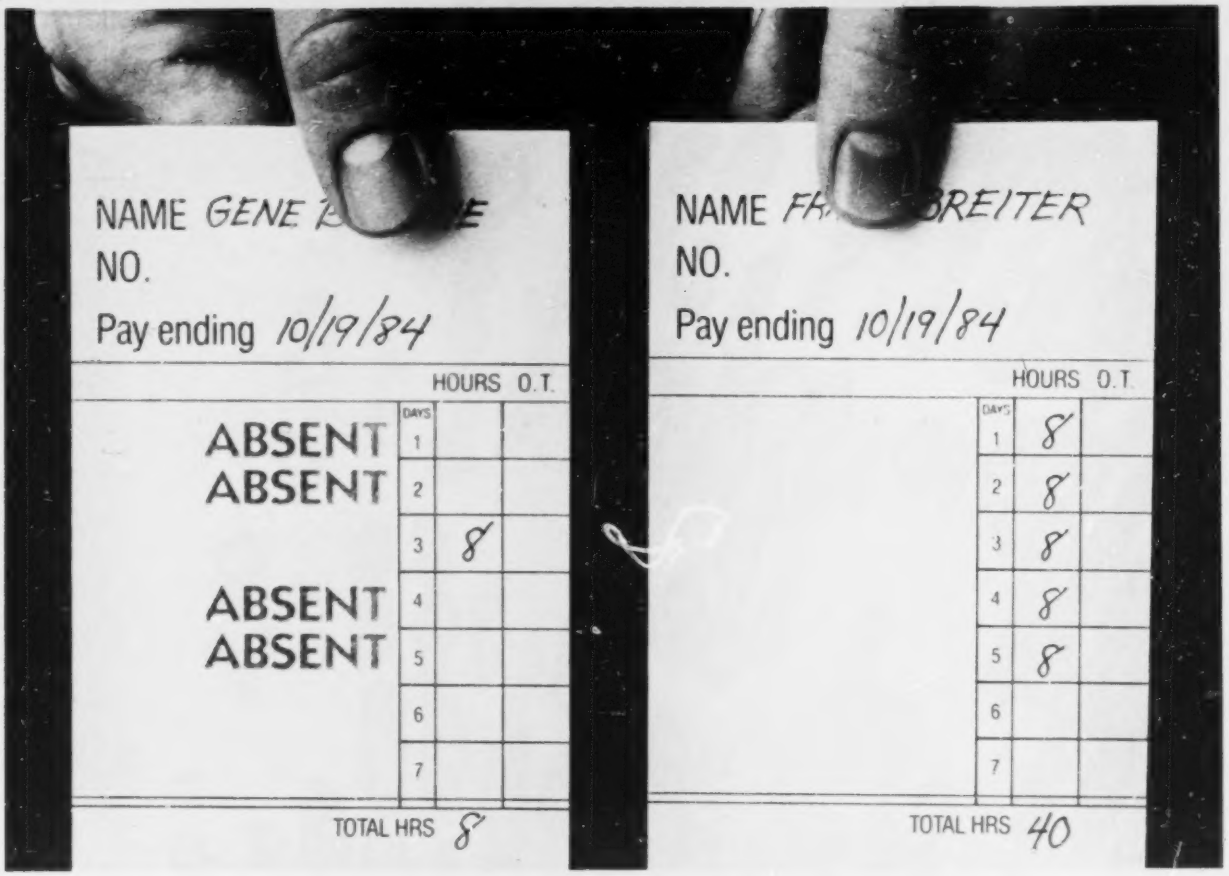
Total estimated drilling cost $43,048,416
Cost per well $44,017
Cost per foot $23.22

Number of producing stripper wells—*12/31/83* 5,854
Number of stripper well abandonments 428
Crude oil stripper production—*thous. bbls.* 4,336
Percentage of crude oil produced by stripper wells 84%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 20,178
Secondary 16,865
Total 37,043

STATE ENERGY CONTACT

Indiana Department of Natural Resources
Division of Oil and Gas
911 State Office Building
Indianapolis, IN 46204
Ph. 317-232-4055



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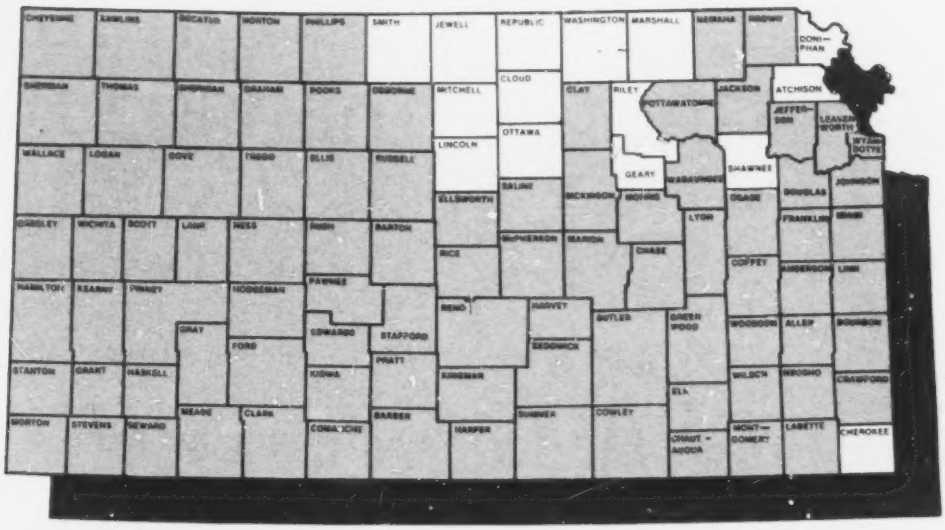


☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	105
With oil and/or gas production	90
Land area—*thous. acres*	52,338
Total acreage under lease	19,750
Productive of oil and/or gas	10,595
Non-productive of oil and/or gas	9,155
Percentage of total land area leased	38%
Percentage of leased acreage productive of oil and/or gas	54%
First year of production:	
Crude oil	1889
Natural gas	1882
Year and amount of peak production:	
Crude oil—124,204 *thous. bbls.*	1956
Natural gas—899,955 *MMcf*	1970

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	6,774
Dry hole	11,300

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	115,104	*51%*
Gas wells	21,534	*10%*
Dry holes	87,386	*39%*
Total	224,024	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	5,482	1,140	6,622	38,151
Production	5,138	697	5,835	27,968

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$27.99
Natural gas—*$/Mcf*	$1.30
Wellhead value of 1984 production: *thous. $*	
Crude oil	$2,119,655
Natural gas	$606,096
Total	$2,725,751
Cumulative crude oil wellhead value as of 12/31/84: *thous $*	$25,129,921

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 1st	70%
Natural gas—ranked 2nd	20%
State and local severance and production taxes paid in 1984—*thous. $*	$116,254
Number of employees in the oil and gas extraction industry in 1984	16,200

1984 INDUSTRY STATISTICS

Seismic crew months worked 119
Rotary drilling rigs active 128

Number of wells drilled:

	Exploratory	Development	Total
Oil	487	1,790	2,277
Gas	88	222	310
Dry	1,632	1,128	2,760
Service	—	101	101
Total	2,207	3,241	5,448

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	1,962.3	5,678.5	7,640.8
Gas	401.2	325.4	1,226.6
Dry	6,528.5	4,069.4	10,597.9
Service	—	282.2	282.2
Total	8,892.0	10,855.5	19,747.4

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 184
New-field wildcat footage-*thous. ft* 787.8

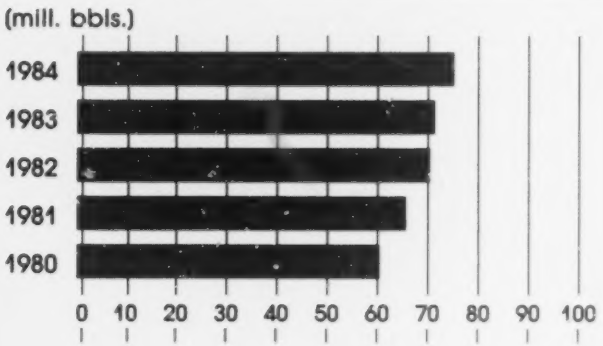
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	5th	9th
Production	8th	6th
Proved reserves	8th	7th

Number of producing wells as of *12/31/84:*
Crude oil 49,198
Natural gas 11,503
Total 60,701

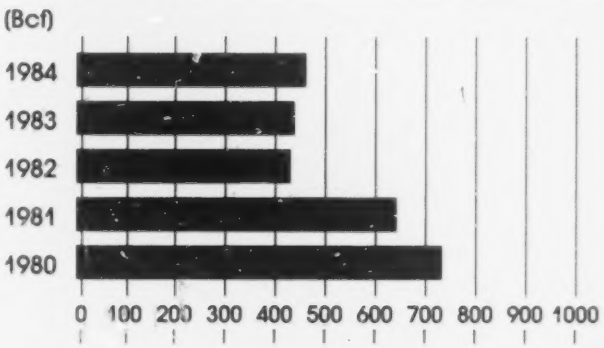
Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 207
NGL 47
Total 254
Natural gas marketed production—*MMcf.* 466,228

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	28	158	186
Production	62	17	79
Net annual change	–34	141	107
Proved reserves	344	443	787

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	41	409	450
Production	21	374	395
Net annual change	20	35	55
Proved reserves	132	10,051	10,183

Total estimated drilling cost $573,580,382
Cost per well $85,431
Cost per foot $27.37

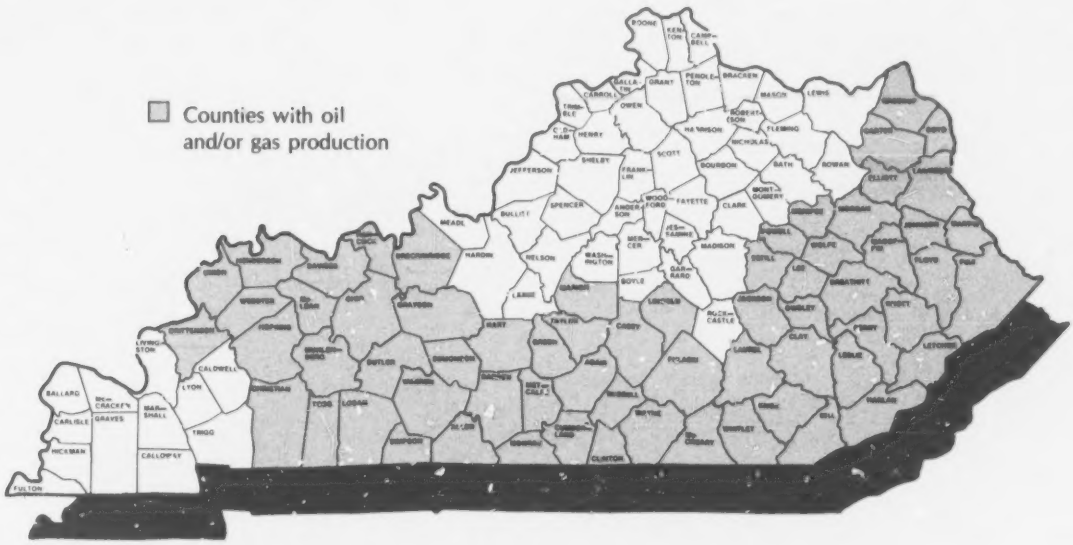
Number of producing stripper wells—*12/31/83* 47,592
Number of stripper well abandonments 1,583
Crude oil stripper production—*thous. bbls.* 48,267
Percentage of crude oil produced by stripper wells 67%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 192,240
Secondary 122,910
Total 315,150

STATE ENERGY CONTACT

Kansas Corporation Commission
200 Colorado Derby
202 West 1st Street
Wichita, KS 67202
Ph. 316-263-3238

Kentucky



HISTORICAL INFORMATION

Number of counties 120
With oil and/or gas production 65

Land area—*thous. acres* 25,388
Total acreage under lease 6,350
Productive of oil and/or gas 1,210
Non-productive of oil and/or gas 5,140
Percentage of total land area leased 25%
Percentage of leased acreage productive of oil and/or gas 19%

First year of production:
Crude oil 1860
Natural gas 1888

Year and amount of peak production:
Crude oil—27,272 *thous. bbls.* 1959
Natural gas—96,459 *MMcf* 1947

Deepest well drilled: *ft.*
Crude oil 7,598
Natural gas ..... Unavailable
Dry hole 15,200

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	50,077	*52%*
Gas wells	10,306	*11%*
Dry holes	36,076	*37%*
Total	96,459	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	708	143	851	4,228
Production	673	112	785	3,628

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.24
Natural gas—*$/Mcf* $1.50

Wellhead value of 1984 production: *thous. $*
Crude oil $219,622
Natural gas $58,725
Total $278,347

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $15,539,400

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 2nd 5%
Natural gas—ranked 4th 1%

State and local severance and production taxes paid in 1984—*thous. $* $14,529

Number of employees in the oil and gas extraction industry in 1984 3,597

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 3
Rotary drilling rigs active 8

Number of wells drilled:

	Exploratory	Development	Total
Oil	133	1,193	1,326
Gas	64	171	235
Dry	497	701	1,198
Service	—	69	69
Total	694	2,134	2,828

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	207.5	1,468.2	1,675.6
Gas	140.9	415.2	556.1
Dry	783.9	976.2	1,760.2
Service	—	80.8	80.8
Total	1,132.3	2,940.4	4,072.7

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 83
New-field wildcat footage-*thous. ft* 137.5

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	6th	11th
Production	20th	20th
Proved reserves	23rd	20th

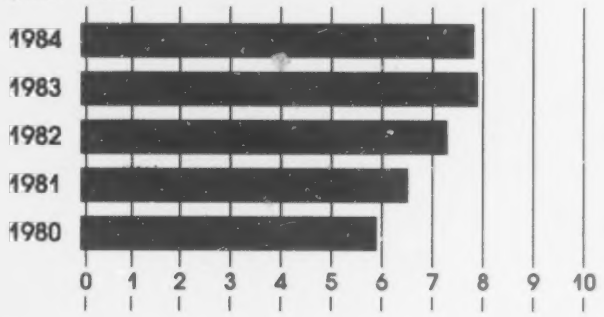
Number of producing wells as of *12/31/84:*
Crude oil 19,980
Natural gas 9,013
Total 28,993

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 21
NGL 6
Total 27
Natural gas marketed production—*MMcf.* 39,150

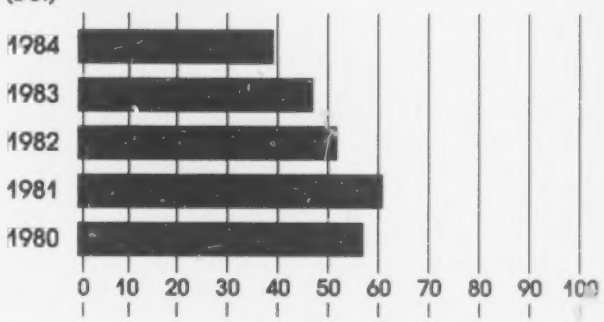
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	5	–2	3
Production	6	2	8
Net annual change	–1	–4	–5
Proved reserves	35	31	66

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	9	41	50
Production	2	40	42
Net annual change	7	1	8
Proved reserves	19	581	600

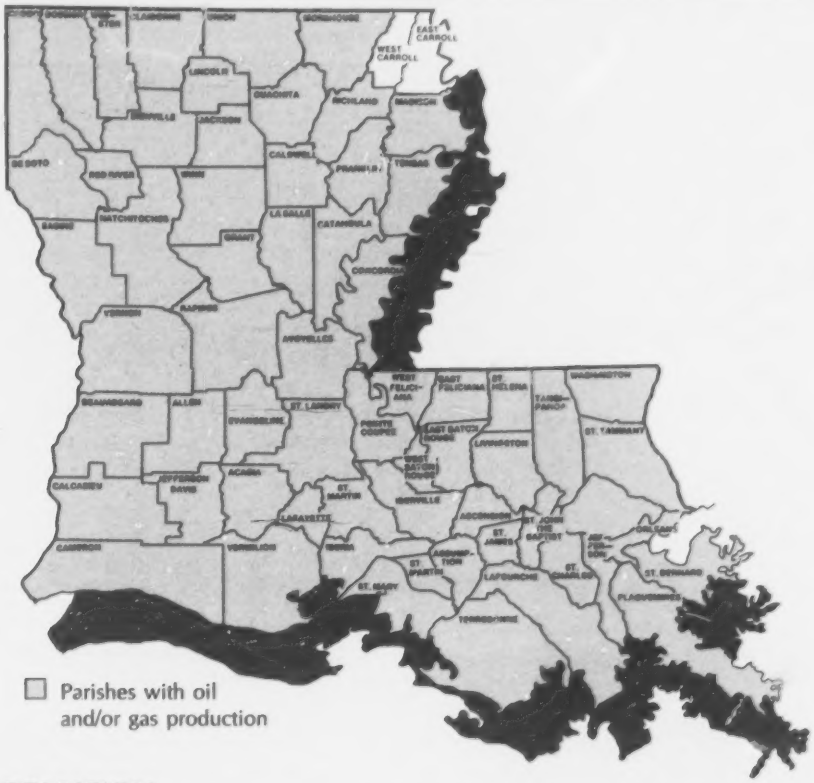
Total estimated drilling cost $130,734,825
Cost per well $43,047
Cost per foot $30.82

Number of producing stripper wells—*12/31/83* 17,000
Number of stripper well abandonments 397
Crude oil stripper production—*thous. bbls.* 5,522
Percentage of crude oil produced by stripper wells 70%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 13,500
Secondary 22,000
Total 35,500

STATE ENERGY CONTACT

Kentucky Department of Mines and Minerals
Oil and Gas Division
P.O. Box 690
Lexington, KY 40586
Ph. 606-257-3812

Louisiana



HISTORICAL INFORMATION

Number of parishes	64
With oil and/or gas production	62
Land area—*thous. acres*	28,493
Total acreage under lease	14,500
Productive of oil and/or gas	7,842
Non-productive of oil and/or gas	6,658
Percentage of total land area leased	51%
Percentage of leased acreage productive of oil and/or gas	54%
First year of production:	
Crude oil	1902
Natural gas	1905
Year and amount of peak production:	
Crude oil—935,243 *thous. bbls.*	1971
Natural gas—8,242,423 *MMcf*	1973

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	21,862
Dry hole	26,500

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	79,138	46%
Gas wells	28,906	17%
Dry holes	64,484	37%
Total	172,528	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-Bcf
	(mill. bbls.)			
Reserves	24,486	3,518	28,004	220,751
Production	21,779	2,186	23,965	177,088

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$29.67
Natural gas—*$/Mcf*	$2.42
Wellhead value of 1984 production: *thous. $*	
Crude oil	$15,288,002
Natural gas	$14,093,102
Total	$29,381,104
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$138,239,399

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 1st	51%
Natural gas—ranked 2nd	47%
State and local severance and production taxes paid in 1984—*thous. $*	$779,666
Number of employees in the oil and gas extraction industry in 1984	78,000

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 436
Rotary drilling rigs active 310

Number of wells drilled:

	Exploratory	Development	Total
Oil	42	2,964	3,006
Gas	35	1,024	1,059
Dry	675	1,634	2,309
Service	—	107	107
Total	752	5,729	6,481

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	415.3	9,740.4	10,155.7
Gas	376.5	6,992.5	7,369.1
Dry	6,191.3	10,154.0	16,345.3
Service	—	246.4	246.4
Total	6,983.1	27,133.3	34,116.5

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 659
New-field wildcat footage-*thous. ft* 6,058.5

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	3rd	5th
Production	3rd	2nd
Proved reserves	4th	2nd

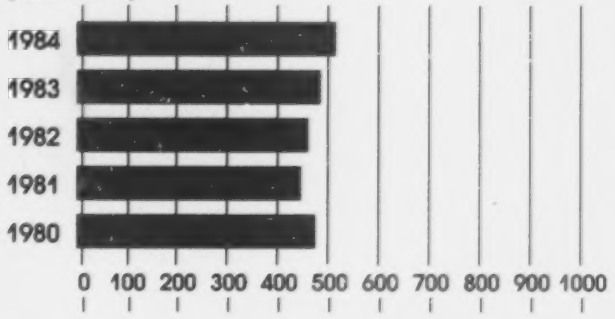
Number of producing wells as of *12/31/84:*
Crude oil 24,508
Natural gas 14,238
Total 38,746

Percentage of oil wells on artificial lift 91%

Average daily production: *(thous. b/d)*
Crude oil 1,408
NGL 425
Total 1,833
Natural gas marketed production—*MMcf.* 5,823,596

CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

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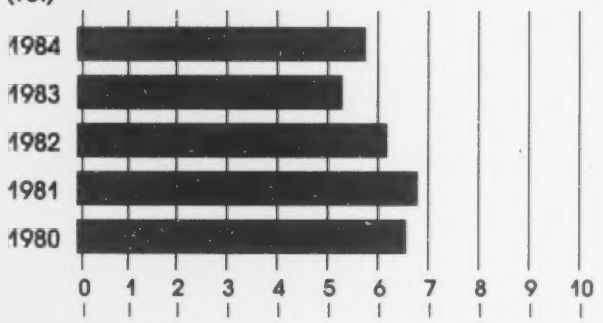


1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	396	192	588
Production	417	155	572
Net annual change	–21	37	16
Proved reserves	2,707	1,332	4,039

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	236	2,805	3,041
Production	771	4,506	5,277
Net annual change	–535	–1,701	–2,236
Proved reserves	7,602	36,061	43,663

Total estimated drilling cost $4,986,484,687
Cost per well $1,023,079
Cost per foot $160.54

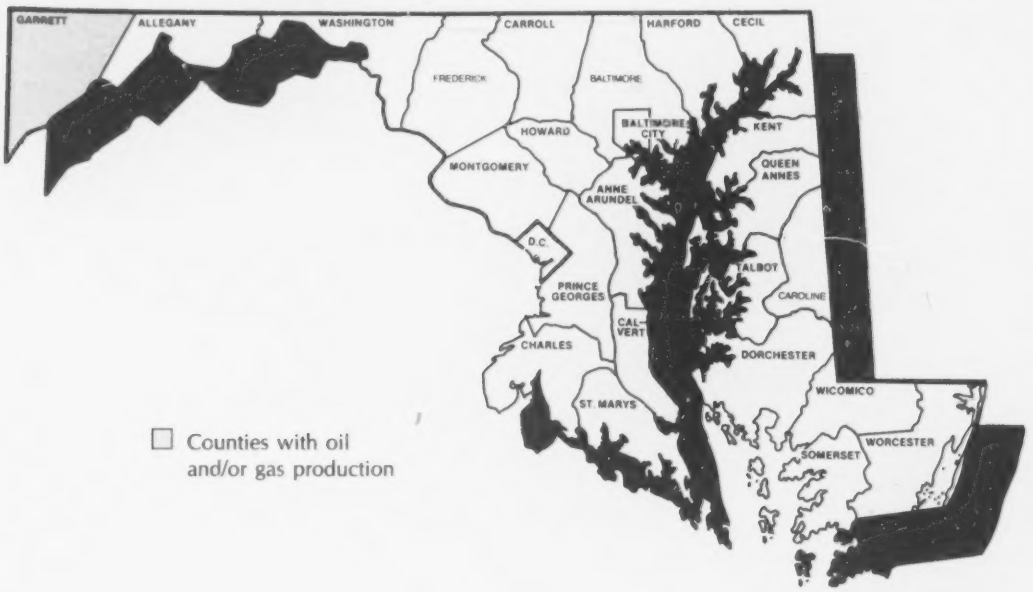
Number of producing stripper wells—*12/31/83* 16,500
Number of stripper well abandonments 637
Crude oil stripper production—*thous. bbls.* 9,000
Percentage of crude oil produced by stripper wells 6%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 68,641
Secondary 58,473
Total 127,114

STATE ENERGY CONTACT

Louisiana Department of Natural Resources
P.O. Box 44396
Capitol Station
Baton Rouge, LA 70804
Ph. 504-342-4500

Maryland



HISTORICAL INFORMATION

Number of counties 23
With oil and/or gas production 1

Land area—*thous. acres* 6,296
Total acreage under lease 314
Productive of oil and/or gas 17
Non-productive of oil and/or gas 297
Percentage of total land area leased 5%
Percentage of leased acreage productive of oil and/or gas 5%

First year of production:
Crude oil ..... Not Applicable
Natural gas 1951

Year and amount of peak production:
Crude oil— ..... Not Applicable
Natural gas—4,543 *MMcf* 1959

Deepest well drilled: *ft.*
Crude oil ..... Not Applicable
Natural gas 8,675
Dry hole 11,617

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	0	*0%*
Gas wells	81	*48%*
Dry holes	87	*52%*
Total	168	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	0	0	—	Unavailable
Production	0	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* ..... Not Applicable
Natural gas—*$/Mcf* ..... $.60

Wellhead value of 1984 production: *thous. $*
Crude oil ..... Not Applicable
Natural gas $18
Total $18

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* ..... Not Applicable

Rank among principal mineral production and percentage of total mineral value:
Crude oil ..... Not Applicable
Natural gas—ranked 7th 0.01%

State and local severance and production taxes paid in 1984—*thous. $* $3

Number of employees in the oil and gas extraction industry in 1984 22

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 1
Rotary drilling rigs active 0
Number of wells drilled:

	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	0	0	0
Service	—	0	0
Total	0	0	0

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	0	0	0
Service	—	0	0
Total	0	0	0

Number of new-field wildcats drilled 0
New-field wildcat footage-*thous. ft* 0

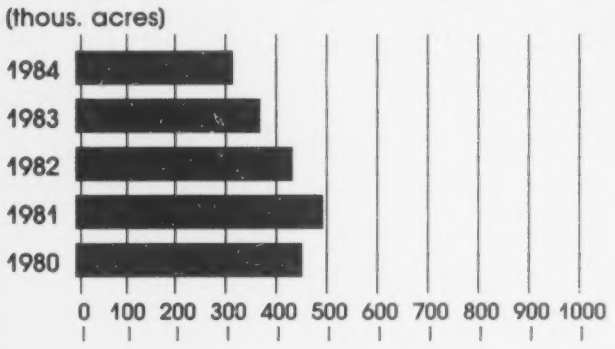
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	Not Applicable	Not Applicable
Production	Not Applicable	30th
Proved reserves	Not Applicable	Unavailable

Number of producing wells as of *12/31/84:*
Crude oil 0
Natural gas ..... Unavailable
Total ..... Unavailable

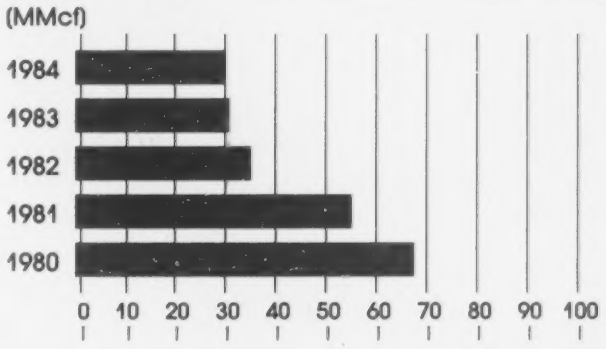
Percentage of oil wells on artificial lift ..... Not Applicable

Average daily production: *(thous. b/d)*
Crude oil 0
NGL 0
Total 0
Natural gas marketed production—*MMcf.* 30

ACREAGE UNDER LEASE



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	0	0	—
Production	0	0	—
Net annual change	—	—	—
Proved reserves	0	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Not Applicable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of crude oil produced by stripper wells ..... N/A
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 0
Total 0

STATE ENERGY CONTACT

Maryland Geological Survey
The Rotunda
711 West 40th Street
Baltimore, MD 21211
Ph. 301-338-7084

Michigan

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 83
With oil and/or gas production 59

Land area—*thous. acres* 36,451
Total acreage under lease 14,756
Productive of oil and/or gas 628
Non-productive of oil and/or gas 14,128
Percentage of total land area leased 40%
Percentage of leased acreage productive of oil and/or gas 4%

First year of production:
Crude oil 1889
Natural gas 1909

Year and amount of peak production:
Crude oil—34,862 *thous. bbls.* 1979
Natural gas—159,731 *MMcf* 1979

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 10,695
Dry hole 17,466

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	13,680	*39%*
Gas wells	2,681	*8%*
Dry holes	18,141	*53%*
Total	34,502	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	1,139	200	1,339	2,107
Production	930	95	1,025	754

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.54
Natural gas—*$/Mcf* $3.50

Wellhead value of 1984 production: *thous. $*
Crude oil $872,011
Natural gas $477,085
Total $1,349,096

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $8,236,026

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 35%
Natural gas—ranked 2nd 19%

State and local severance and production taxes paid in 1984—*thous. $* $78,441

Number of employees in the oil and gas extraction industry in 1984 4,279

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 163
Rotary drilling rigs active 34

Number of wells drilled:

	Exploratory	Development	Total
Oil	47	291	338
Gas	30	38	68
Dry	436	193	629
Service	—	17	17
Total	513	539	1,052

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	197.8	1,089.3	1,287.1
Gas	148.3	141.2	289.4
Dry	1,846.9	64.5	64.5
Service	—	64.5	64.5
Total	2,193.0	2,159.5	4,352.5

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 512
New-field wildcat footage-*thous. ft* 2,187.7

State-wide rank in:	Crude Oil	Natural Gas
Total wells	16th	18th
Production	12th	14th
Proved reserves	11th	16th

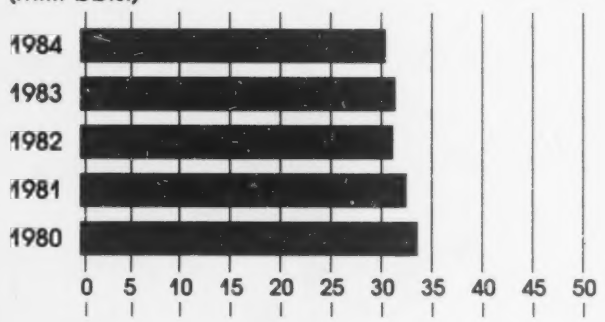
Number of producing wells as of *12/31/84:*
Crude oil 4,881
Natural gas 510
Total 5,391

Percentage of oil wells on artificial lift 85%

Average daily production: *(thous. b/d)*
Crude oil 83
NGL 30
Total 113
Natural gas marketed production—*MMcf.* 136,310

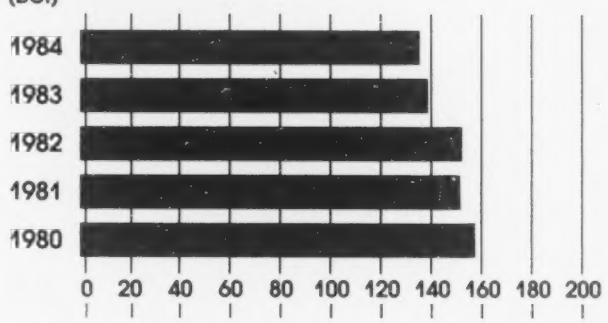
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	56	19	75
Production	31	11	42
Net annual change	25	8	33
Proved reserves	209	105	314

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	175	117	29
Production	70	69	13
Net annual change	105	48	15
Proved reserves	824	529	1,35

Total estimated drilling cost $194,724,437
Cost per well $23,878
Cost per foot $56.21

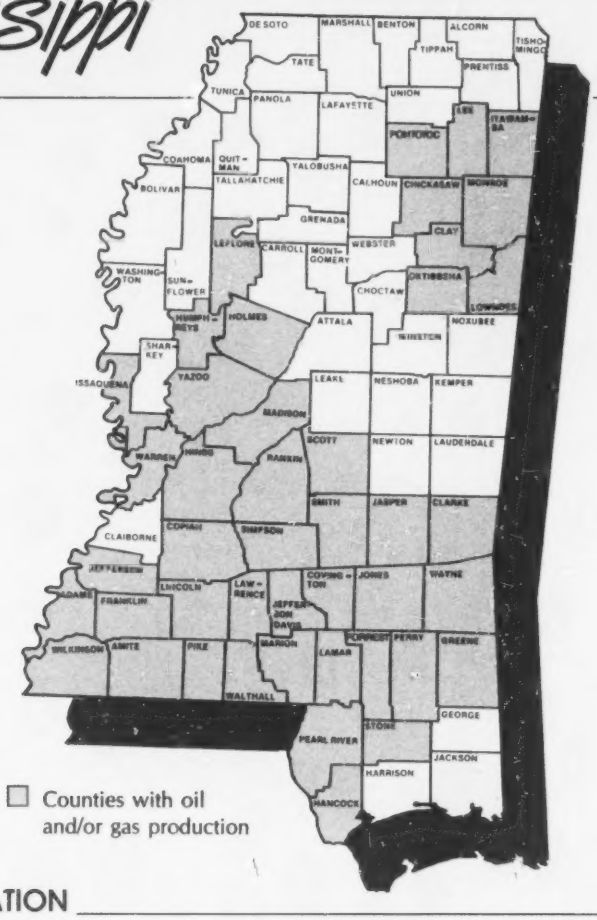
Number of producing stripper wells—*12/31/83* 3,367
Number of stripper well abandonments 99
Crude oil stripper production—*thous. bbls.* 3,145
Percentage of crude oil produced by stripper wells 10%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 20,130
Secondary 32,270
Total 52,400

STATE ENERGY CONTACT

Michigan Geological Survey
Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909
Ph. 517-373-1256

Mississippi



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 82
With oil and/or gas production 44

Land area—*thous. acres* 30,229
Total acreage under lease 10,402
Productive of oil and/or gas 700
Non-productive of oil and/or gas 9,702
Percentage of total land area leased 34%
Percentage of leased acreage productive of oil and/or gas 7%

First year of production:
Crude oil 1889
Natural gas 1923

Year and amount of peak production:
Crude oil—65,119 *thous. bbls.* 1970
Natural gas—211,371 *MMcf* 1981

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 21,727
Dry hole 25,460

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	7,207	32%
Gas wells	1,226	6%
Dry holes	13,793	62%
Total	22,226	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	2,231	116	2,347	7,780
Production	2,026	97	2,123	6,177

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.26
Natural gas—*$/Mcf* $3.53

Wellhead value of 1984 production: *thous. $*
Crude oil $893,474
Natural gas $558,174
Total $1,451,648

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $10,191,772

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 58%
Natural gas—ranked 2nd 36%

State and local severance and production taxes paid in 1984—*thous. $* $96,888

Number of employees in the oil and gas extraction industry in 1984 8,406

1984 INDUSTRY STATISTICS

Seismic crew months worked 85
Rotary drilling rigs active 32

Number of wells drilled:

	Exploratory	Development	Total
Oil	20	118	138
Gas	10	25	35
Dry	204	140	344
Service	—	0	0
Total	234	283	517

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	174.3	988.9	1,163.2
Gas	86.9	273.1	360.0
Dry	1,712.7	1,100.8	2,813.5
Service	—	0	0
Total	1,973.9	2,362.8	4,336.8

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 234
New-field wildcat footage-*thous. ft* 1,973.9

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	20th	21st
Production	11th	11th
Proved reserves	12th	15th

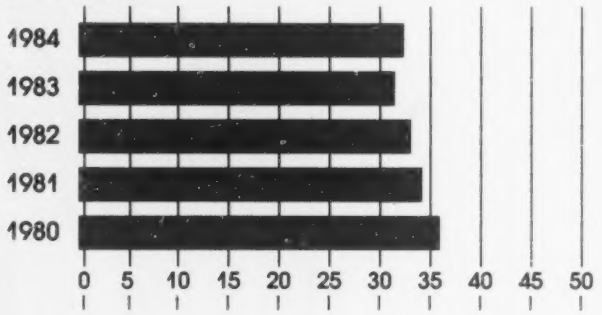
Number of producing wells as of *12/31/84:*
Crude oil 2,562
Natural gas 671
Total 3,233

Percentage of oil wells on artificial lift 90%

Average daily production: *(thous. b/d)*
Crude oil 90
NGL 6
Total 96
Natural gas marketed production—*MMcf.* 158,123

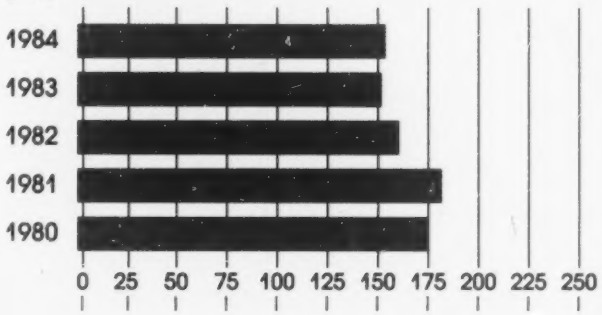
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	11	3	14
Production	29	2	31
Net annual change	−18	1	−17
Proved reserves	205	19	224

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	16	−56	−40
Production	10	150	160
Net annual change	6	−206	−200
Proved reserves	80	1,523	1,603

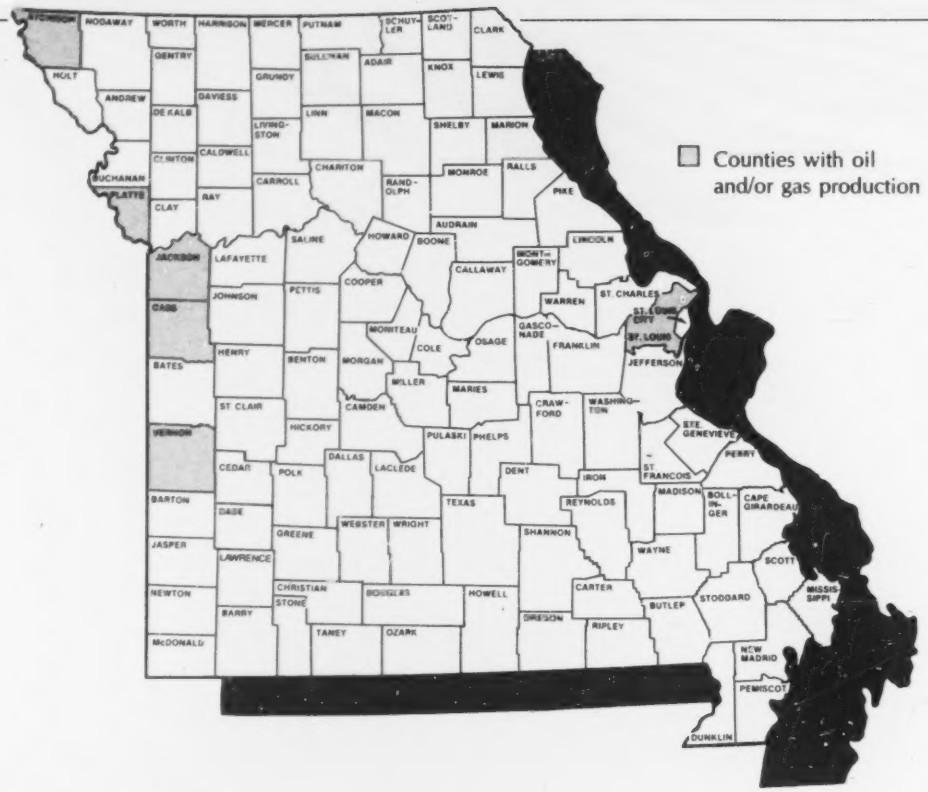
Total estimated drilling cost $368,342,936
Cost per well $668,499
Cost per foot $80.87

Number of producing stripper wells—*12/31/83* 837
Number of stripper well abandonments 86
Crude oil stripper production—*thous. bbls.* 1,286
Percentage of crude oil produced by stripper wells 4%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 15,815
Secondary 2,765
Total 18,580

STATE ENERGY CONTACT

Mississippi State Oil and Gas Board
P.O. Box 1332
Jackson, MS 39205
Ph. 601-359-1231

Missouri



HISTORICAL INFORMATION

Number of counties 114
With oil and/or gas production 6

Land area—*thous. acres* 44,125
Total acreage under lease 713
Productive of oil and/or gas 13
Non-productive of oil and/or gas 700
Percentage of total land area leased 2%
Percentage of leased acreage productive of oil and/or gas 2%

First year of production:
Crude oil 1888
Natural gas 1887

Year and amount of peak production:
Crude oil—285 *thous. bbls.* 1984
Natural gas—1,369 *MMcf* 1938

Deepest well drilled: *ft.*
Crude oil 2,975
Natural gas ..... Not Applicable
Dry hole 4,906

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	713	*37%*
Gas wells	195	*10%*
Dry holes	1,035	*53%*
Total	1,943	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $31.00
Natural gas—*$/Mcf* ..... Not Applicable

Wellhead value of 1984 production: *thous. $*
Crude oil $8,835
Natural gas ..... Not Applicable
Total $8,835

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $42,988

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 10th 1%
Natural gas ..... Not Applicable

State and local severance and production taxes paid in 1984—*thous. $* ..... Unavailable

Number of employees in the oil and gas extraction industry in 1984 135

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked ..... Unavailable
Rotary drilling rigs active ..... Unavailable

Number of wells drilled:

	Exploratory	Development	Total
Oil	1	27	28
Gas	0	0	0
Dry	20	6	26
Service	—	51	51
Total	21	84	105

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	.6	13.0	13.6
Gas	0	0	0
Dry	12.9	4.2	17.1
Service	—	14.5	14.5
Total	13.5	31.7	45.2

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 10
New-field wildcat footage-*thous. ft* 8.7

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	25th	Not Applicable
Production	29th	Not Applicable
Proved reserves	Not Available	Not Available

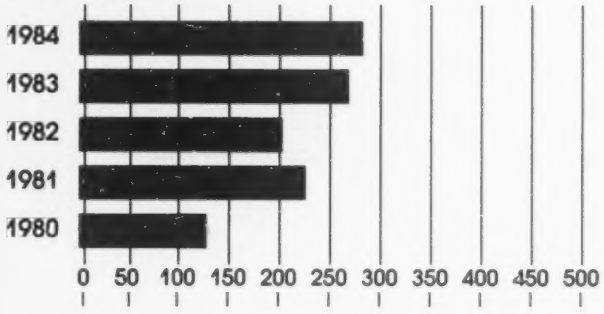
Number of producing wells as of *12/31/84:*
Crude oil 557
Natural gas 0
Total 557

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 1
NGL 0
Total 1
Natural gas marketed production—*MMcf.* 0

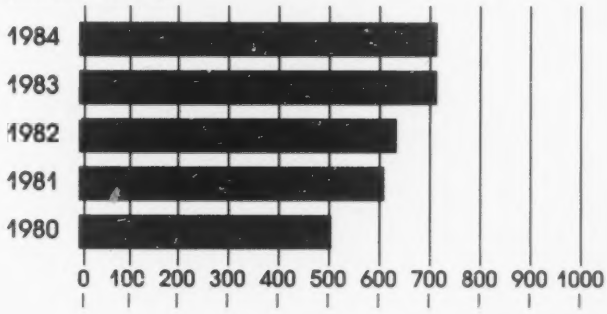
CRUDE OIL PRODUCTION

(thous. bbls.)



ACREAGE UNDER LEASE

(thous. acres)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	0	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	0
Production	—	—	0
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

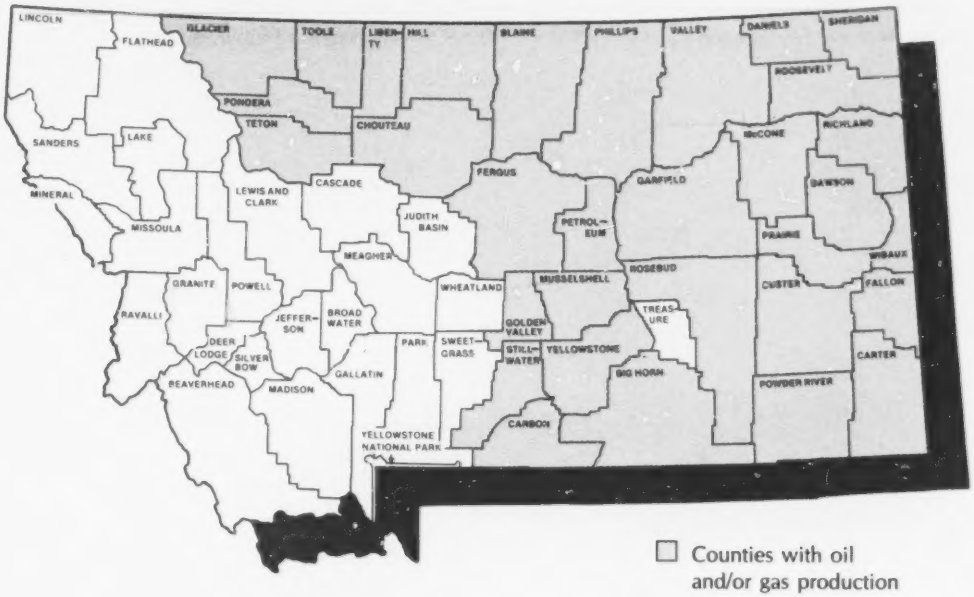
Number of producing stripper wells—*12/31/83* 548
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 271
Percentage of crude oil produced by stripper wells 100%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 148
Total 148

STATE ENERGY CONTACT

Missouri Department of Economic Development
Oil and Gas Research Division
301 West High Street
Jefferson City, MO 65101
Ph. 314-751-4241

Montana



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	56
With oil and/or gas production	32
Land area—*thous. acres*	93,048
Total acreage under lease	44,050
Productive of oil and/or gas	1,085
Non-productive of oil and/or gas	42,965
Percentage of total land area leased	47%
Percentage of leased acreage productive of oil and/or gas	2%
First year of production:	
Crude oil	1916
Natural gas	1915
Year and amount of peak production:	
Crude oil—48,460 *thous. bbls.*	1968
Natural gas—56,565 *MMcf*	1981

Deepest well drilled: *ft.*

Crude oil	13,012
Natural gas	Unavailable
Dry hole	17,774

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	10,279	*37%*
Gas wells	4,171	*15%*
Dry holes	13,329	*48%*
Total	27,779	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,371	47	1,418	2,912
Production	1,137	28	1,165	1,991

VALUE OF OIL AND GAS

Average 1984 wellhead price:

Crude oil—*$/bbl.*	$28.07
Natural gas—*$/Mcf*	$2.46

Wellhead value of 1984 production: *thous. $*

Crude oil	$835,391
Natural gas	$127,827
Total	$963,218

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $7,897,481

Rank among principal mineral production and percentage of total mineral value:

Crude oil—ranked 1st	50%
Natural gas—ranked 3rd	8%

State and local severance and production taxes paid in 1984—*thous. $* $56,696

Number of employees in the oil and gas extraction industry in 1984 4,293

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 125
Rotary drilling rigs active 36

Number of wells drilled:

	Exploratory	Development	Total
Oil	52	298	350
Gas	6	95	101
Dry	164	108	272
Service	—	2	2
Total	222	503	725

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	480.4	1,347.2	1,827.6
Gas	8.2	152.2	160.4
Dry	1,125.3	429.1	1,554.5
Service	—	6.1	6.1
Total	1,613.9	1,934.6	3,548.6

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 173
New-field wildcat footage-*thous. ft* 1,234.2

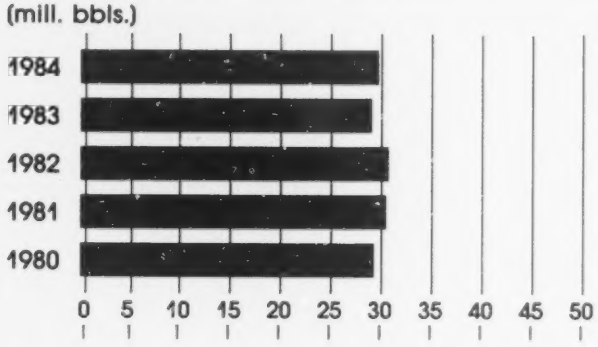
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	14th	14th
Production	13th	19th
Proved reserves	10th	17th

Number of producing wells as of *12/31/84:*
Crude oil 4,716
Natural gas 1,958
Total 6,674

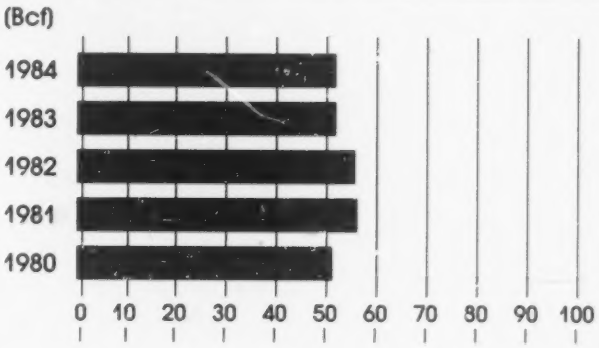
Percentage of oil wells on artificial lift 91%

Average daily production: *(thous. b/d)*
Crude oil 81
NGL 3
Total 84
Natural gas marketed production—*MMcf.* 51,962

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	46	2	48
Production	28	1	29
Net annual change	18	1	19
Proved reserves	234	19	253

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	39	63	102
Production	12	39	51
Net annual change	27	24	51
Proved reserves	108	813	921

Total estimated drilling cost $169,748,176
Cost per well $349,276
Cost per foot $74.98

Number of producing stripper wells—*12/31/83* 2,673
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 3,104
Percentage of crude oil produced by stripper wells 10%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 28,200
Secondary 1,490
Total 29,690

STATE ENERGY CONTACT

Montana Dept. of Natural Resources and Conservation
Board of Oil and Gas
P.O. Box 217
Helena, MT 59624
Ph. 406-444-6675

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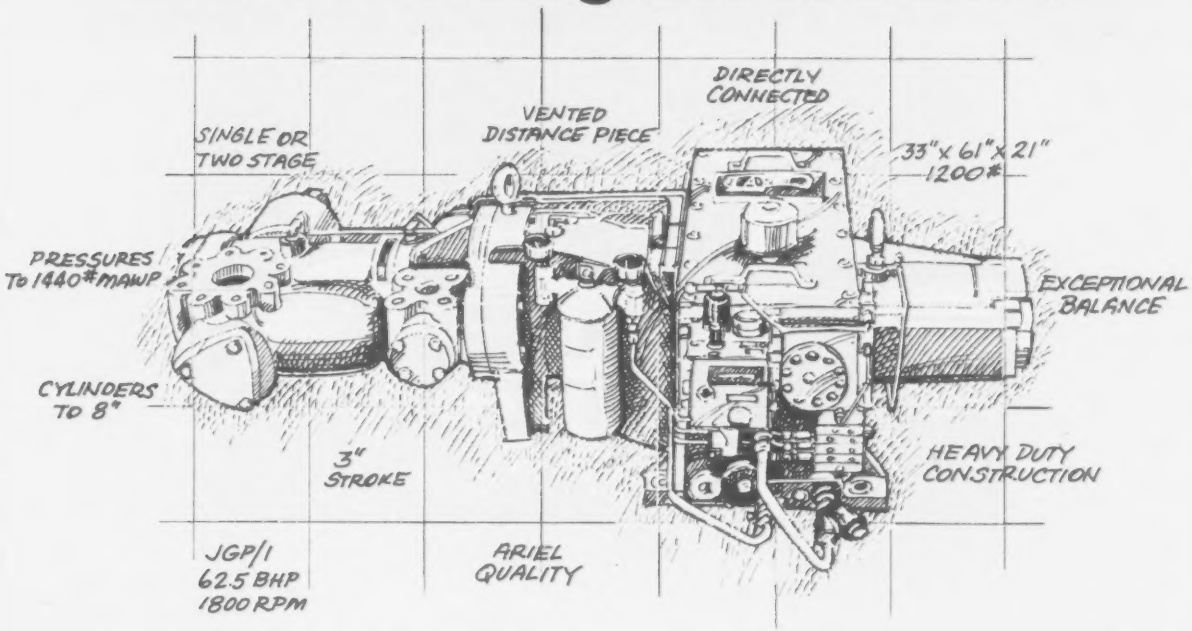
United Way 1984

Ad Council A Public Service of This Publication

The Ariel JGP/1 Shows How First Class Makes The Long Run Cost Less.



There are a lot of bargains on small compressors today. Some of them may look pretty good. And most do a comparable job.

But how regularly, and how long, do they stay on line?

Before you invest in what looks like a bargain, consider this: the actual cost of a compressor is reflected in reliable performance and years of service. Not just in the initial price tag.

Take a look at an Ariel compressor, like the JGP/1. You'll find first class workmanship in the way they're built. Components are stronger, heavier and tougher than they have to be. The frame is balanced-opposed design for smooth operation. And because Ariel compressors are directly connected, there are no belts or sheaves to add maintenance problems.

Ariel compressors are designed for safe operation and longevity. Full pressure lubrication keeps all parts moving smoothly with minimum wear, for maximum life and safe operation. To further ensure safety, the compressor cylinders feature packed piston rods and vented distance pieces.

In addition, engineering is precise, tolerances exact and design functional and efficient. The results are a line of compact, portable compressors which deliver expected performance up to 800 BHP.

And like all Ariel compressors, the JGP/1 is intentionally designed and built for permanent operation. Unlike many compressors that must be replaced after a few years, Ariel compressors are manufactured for decades of continuous duty. And you can rely on parts shipment within 24-hours when you need it.

And there's no better warranty. All parts for eighteen months. For thirty-six months we warrant the crankshaft, crankcase casting, connecting rods, crossheads and crosshead guide castings. Proper maintenance and use restrictions apply, but you won't find another warranty like this. Because Ariel has been synonymous with reliability and quality for more than a decade.

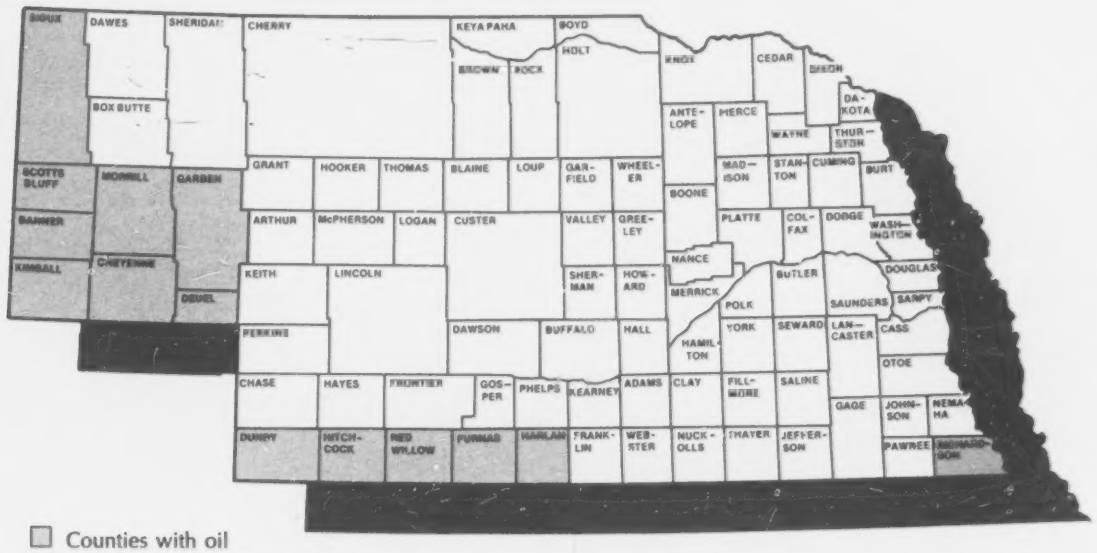
Look into Ariel's full line of first class quality compressors. You'll see that going first class can save more than economy class, in the long run.

ARIEL CORPORATION

Domestic & International Marketing: P.O. Box 36677 · Houston, Texas 77236-6677 · 713/491-4914 · Telex 79-0043
Manufacturing: Industrial Park · Mount Vernon, Ohio 43050-9482 · 614/397-0311 · Telex 24-5386

ARIEL

Nebraska



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 93
With oil and/or gas production 14

Land area—*thous. acres* 49,052
Total acreage under lease 13,411
Productive of oil and/or gas 334
Non-productive of oil and/or gas 13,077
Percentage of total land area leased 27%
Percentage of leased acreage productive of oil and/or gas 2%

First year of production:
Crude oil 1939
Natural gas 1949

Year and amount of peak production:
Crude oil—24,894 *thous. bbls.* 1962
Natural gas—15,743 *MMcf* 1961

Deepest well drilled: *ft.*
Crude oil 7,438
Natural gas ..... Unavailable
Dry hole 9,971

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	5,103	*31%*
Gas wells	212	*1%*
Dry holes	11,286	*68%*
Total	16,601	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	456	Unavailable	456	Unavailable
Production	412	Unavailable	412	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.83
Natural gas—*$/Mcf* $2.24

Wellhead value of 1984 production: *thous. $*
Crude oil $179,559
Natural gas $4,446
Total $184,005

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $2,325,347

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 64%
Natural gas—ranked 4th 2%

State and local severance and production taxes paid in 1984—*thous. $* $5,128

Number of employees in the oil and gas extraction industry in 1984 952

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 16
Rotary drilling rigs active 9
Number of wells drilled:

	Exploratory	Development	Total
Oil	14	101	115
Gas	3	2	5
Dry	117	52	169
Service	—	11	11
Total	134	166	300

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	70.9	451.5	522.5
Gas	9.0	8.2	17.1
Dry	599.1	254.2	853.3
Service	—	48.1	48.1
Total	679.0	762.0	1,441.0

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 131
New-field wildcat footage-*thous. ft* 663.3

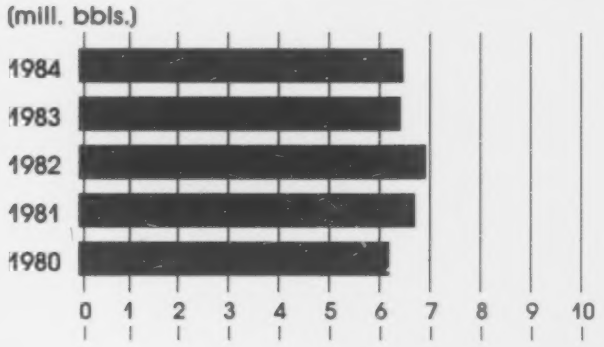
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	21st	24th
Production	21st	25th
Proved reserves	21st	Unavailable

Number of producing wells as of *12/31/84:*
Crude oil 2,095
Natural gas 21
Total 2,116

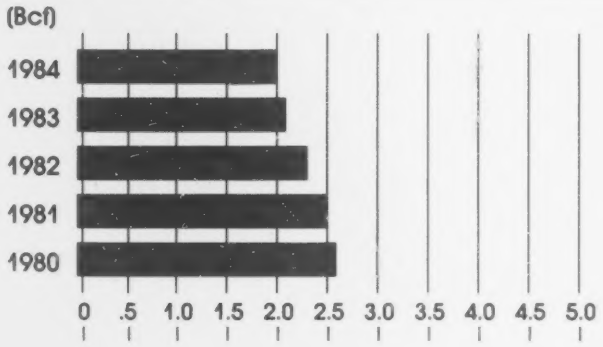
Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 18
NGL 0
Total 18
Natural gas marketed production—*MMcf.* 1,985

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	17	Unavailable	17
Production	5	—	5
Net annual change	12	—	12
Proved reserves	44	Unavailable	44

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

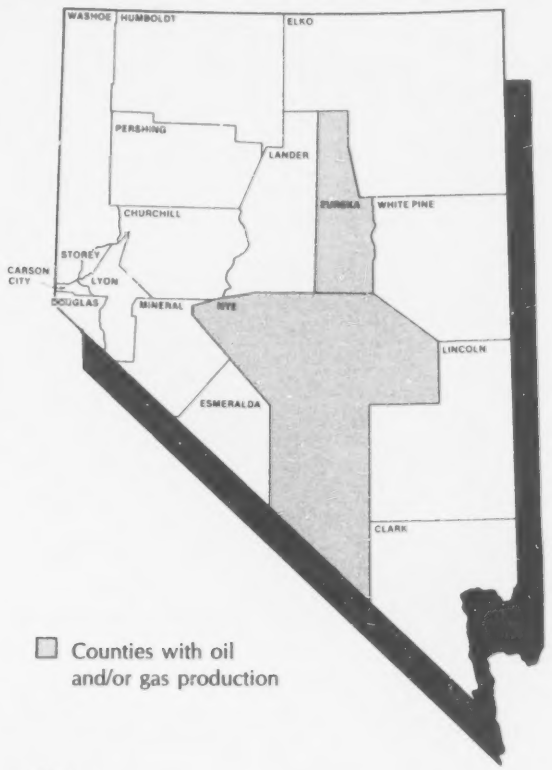
Total estimated drilling cost $45,810,628
Cost per well $130,144
Cost per foot $26.56

Number of producing stripper wells—*12/31/83* 1,672
Number of stripper well abandonments 18
Crude oil stripper production—*thous. bbls.* 3,418
Percentage of crude oil produced by stripper wells 54%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 6,450
Secondary 2,150
Total 8,600

STATE ENERGY CONTACT

Nebraska Oil and Gas Conservation Commission
P.O. Box 399
Sidney, NB 69162
Ph. 308-254-4595

Nevada



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 16
With oil and/or gas production 2

Land area—*thous. acres* 70,332
Total acreage under lease 29,853
Productive of oil and/or gas 5
Non-productive of oil and/or gas 29,848
Percentage of total land area leased 42%
Percentage of leased acreage productive of oil and/or gas 0%

First year of production:
Crude oil 1954
Natural gas ..... Not Applicable

Year and amount of peak production:
Crude oil—1,907 *thous. bbls.* 1984
Natural gas— ..... Not Applicable

Deepest well drilled: *ft.*
Crude oil 8,581
Natural gas ..... Not Applicable
Dry hole 19,562

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	38	*12%*
Gas wells	1	*0%*
Dry holes	279	*88%*
Total	318	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $18.70
Natural gas—*$/Mcf* ..... Not Applicable

Wellhead value of 1984 production: *thous. $*
Crude oil $35,661
Natural gas ..... Not Applicable
Total $35,661

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $146,562

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 3rd 5%
Natural gas ..... Not Applicable

State and local severance and production taxes paid in 1984—*thous. $* $98

Number of employees in the oil and gas extraction industry in 1984 408

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 54
Rotary drilling rigs active 5
Number of wells drilled:

	Exploratory	Development	Total
Oil	1	2	3
Gas	0	0	0
Dry	24	0	24
Service	—	0	0
Total	25	2	27

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	4.2	8.6	12.8
Gas	0	0	0
Dry	157.9	0	157.9
Service	—	0	0
Total	162.1	8.6	170.7

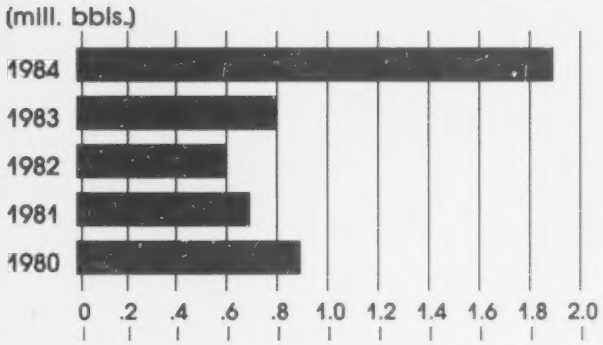
(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 24
New-field wildcat footage-*thous. ft* 153.5

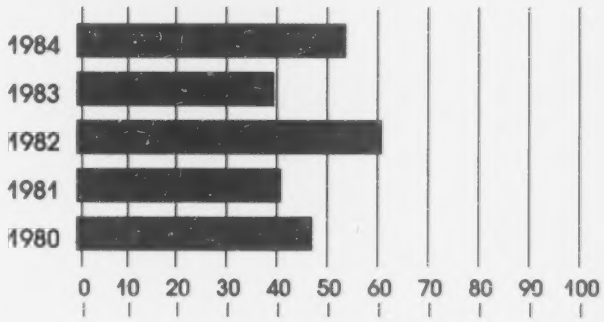
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	29th	Not Applicable
Production	25th	Not Applicable
Proved reserves	Unavailable	Not Applicable

Number of producing wells as of *12/31/84:*
Crude oil ..... Unavailable
Natural gas 0
Total ..... Unavailable
Percentage of oil wells on artificial lift ..... Unavailable
Average daily production: *(thous. b/d)*
Crude oil 5
NGL 0
Total 5
Natural gas marketed production—*MMcf.* 0

CRUDE OIL PRODUCTION



SEISMIC CREW MONTHS WORKED



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	0
Production	—	—	0
Net annual change	—	—	—
Proved reserves	—	—	0

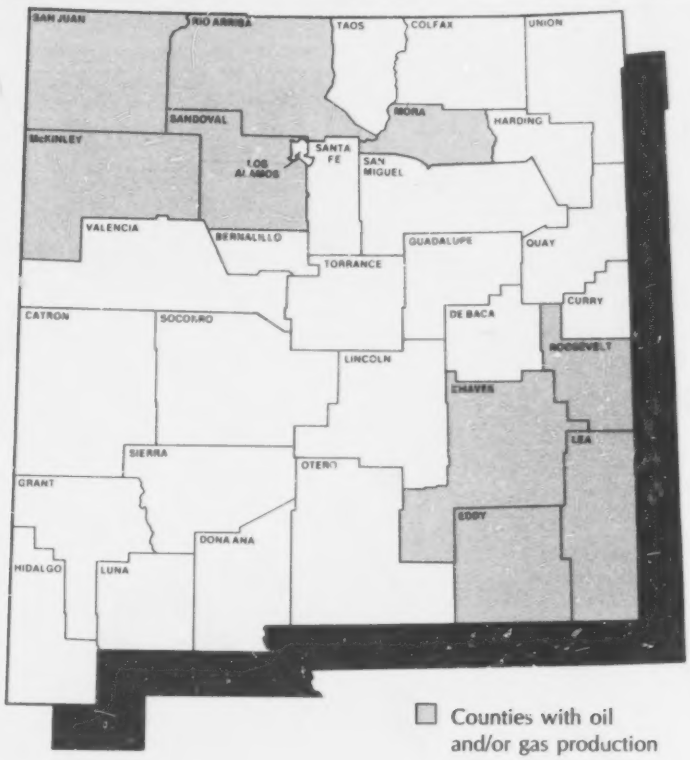
Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of crude oil produced by stripper wells ..... N/A
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 0
Total 0

STATE ENERGY CONTACT

Nevada Department of Minerals
400 West King Street, Suite 106
Carson City, NV 89710
Ph. 702-885-5050

New Mexico



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 32
With oil and/or gas production 9

Land area—*thous. acres* 77,654
Total acreage under lease 42,621
Productive of oil and/or gas 3,822
Non-productive of oil and/or gas 38,799
Percentage of total land area leased 55%
Percentage of leased acreage productive of oil and/or gas 9%

First year of production:
Crude oil 1911
Natural gas 1924

Year and amount of peak production:
Crude oil—129,227 *thous. bbls.* 1969
Natural gas—1,244,779 *MMcf* 1974

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 17,544
Dry hole 22,926

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	28,503	49%
Gas wells	16,994	30%
Dry holes	12,161	21%
Total	57,658	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	5,606	1,654	7,260	47,697
Production	5,030	1,103	6,133	35,326

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.69
Natural gas—*$/Mcf* $2.77

Wellhead value of 1984 production: *thous. $*
Crude oil $2,276,150
Natural gas $2,635,860
Total $4,912,010

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $21,581,539

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 2nd 39%
Natural gas—ranked 1st 45%

State and local severance and production taxes paid in 1984—*thous. $* $381,537

Number of employees in the oil and gas extraction industry in 1984 13,450

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 114
Rotary drilling rigs active 78

Number of wells drilled:

	Exploratory	Development	Total
Oil	58	840	898
Gas	31	382	413
Dry	112	138	250
Service	—	40	40
Total	201	1,400	1,601

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	412.4	4,904.5	5,317.0
Gas	277.5	2,471.4	2,749.0
Dry	699.8	841.0	1,540.8
Service	—	166.2	166.2
Total	1,389.7	8,383.1	9,772.9

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 100
New-field wildcat footage-*thous. ft* 661.8

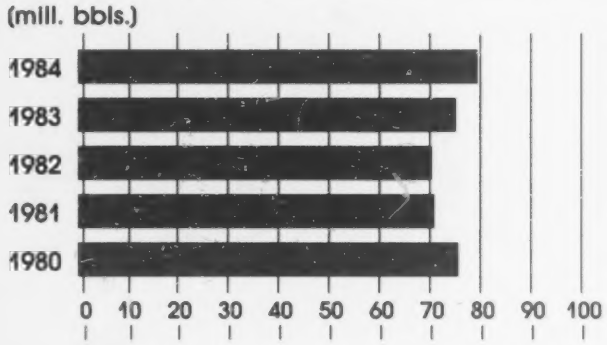
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	8th	8th
Production	7th	4th
Proved reserves	7th	5th

Number of producing wells as of *12/31/84:*
Crude oil 18,146
Natural gas 16,401
Total 34,547

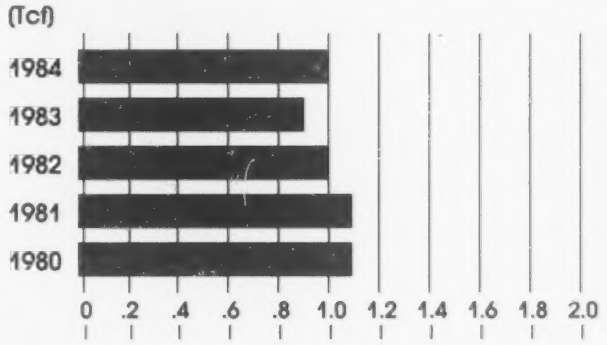
Percentage of oil wells on artificial lift 82%

Average daily production: *(thous. b/d)*
Crude oil 217
NGL 121
Total 338
Natural gas marketed production—*MMcf.* 951,574

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	83	64	147
Production	70	44	114
Net annual change	13	20	33
Proved reserves	576	551	1,127

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	162	−17	145
Production	179	677	856
Net annual change	−17	−694	−711
Proved reserves	1,503	10,868	12,371

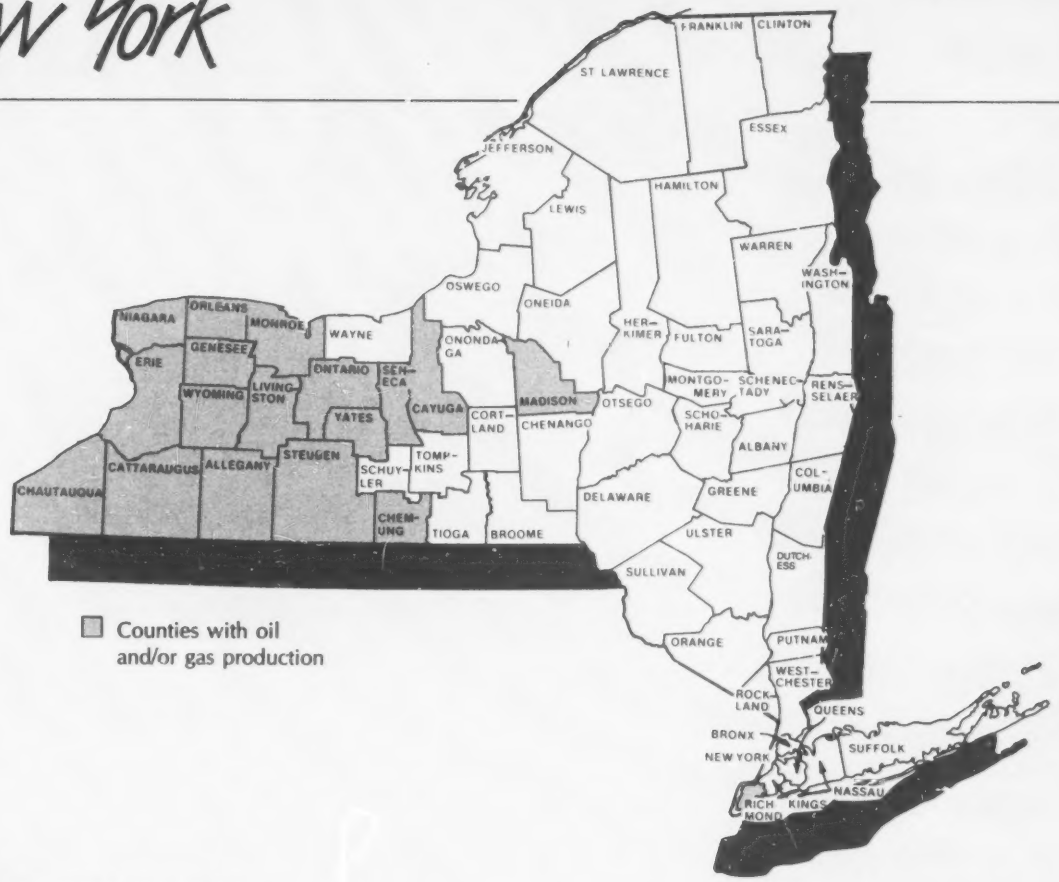
Total estimated drilling cost $685,878,282
Cost per well $464,058
Cost per foot $78.67

Number of producing stripper wells—*12/31/83* 14,280
Number of stripper well abandonments 628
Crude oil stripper production—*thous. bbls.* 14,722
Percentage of crude oil produced by stripper wells 21%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 89,045
Secondary 38,555
Total 127,600

STATE ENERGY CONTACT

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501
Ph. 505-827-5800

New York



HISTORICAL INFORMATION

Number of counties 62
With oil and/or gas production 18

Land area—*thous. acres* 30,321
Total acreage under lease 5,600
Productive of oil and/or gas 2,000
Non-productive of oil and/or gas 3,600
Percentage of total land area leased 18%
Percentage of leased acreage productive of oil and/or gas 36%

First year of production:
Crude oil 1865
Natural gas 1885

Year and amount of peak production:
Crude oil—6,685 *thous. bbls.* 1882
Natural gas—39,402 *MMcf* 1938

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 5,425
Dry hole 13,500

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	9,151	66%
Gas wells	3,803	27%
Dry holes	1,020	7%
Total	13,974	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	Unavailable	0	—	913
Production	Unavailable	0	—	618

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.70
Natural gas—*$/Mcf* $4.00

Wellhead value of 1984 production: *thous. $*
Crude oil $23,268
Natural gas $75,840
Total $99,108

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $952,584

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 6th 4%
Natural gas—ranked 3rd 13%

State and local severance and production taxes paid in 1984—*thous. $* ..... Unavailable

Number of employees in the oil and gas extraction industry in 1984 2,561

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 12
Rotary drilling rigs active 9
Number of wells drilled:

	Exploratory	Development	Total
Oil	3	97	100
Gas	9	287	296
Dry	5	8	13
Service	—	0	0
Total	17	392	409

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	4.5	125.2	129.6
Gas	26.6	944.9	971.5
Dry	20.6	29.0	49.6
Service	—	0	0
Total	51.6	1,099.1	1,150.7

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 8
New-field wildcat footage-*thous. ft* 28.2

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	22nd	10th
Production	28th	21st
Proved reserves	Unavailable	21st

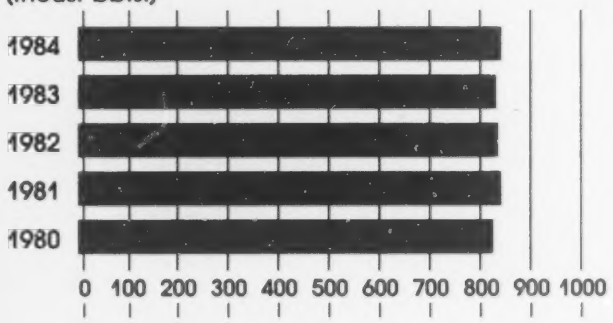
Number of producing wells as of *12/31/84:*
Crude oil 4,678
Natural gas 3,800
Total 8,478

Percentage of oil wells on artificial lift 99%

Average daily production: *(thous. b/d)*
Crude oil 2
NGL 0
Total 2
Natural gas marketed production—*MMcf.* 18,960

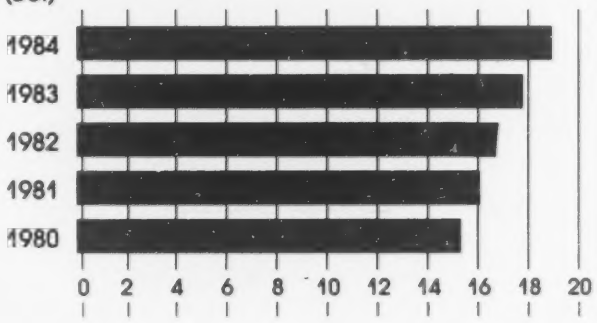
CRUDE OIL PRODUCTION

(thous. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	−3	81	78
Production	0	12	12
Net annual change	−3	69	66
Proved reserves	0	295	295

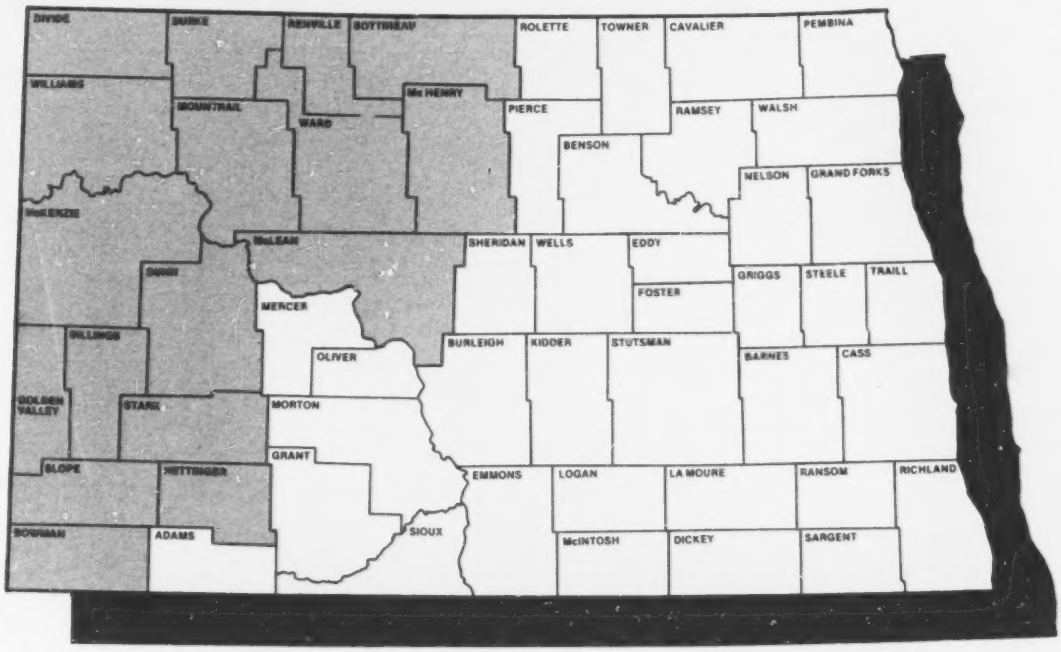
Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 4,228
Number of stripper well abandonments 70
Crude oil stripper production—*thous. bbls.* 774
Percentage of crude oil produced by stripper wells 81%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 923
Secondary 8,059
Total 8,982

STATE ENERGY CONTACT

New York Energy Office
Department of Oil and Gas
2 Rockefeller Plaza
Albany, NY 12223
Ph. 518-473-4888

North Dakota



Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 53
With oil and/or gas production 17

Land area—*thous. acres* 44,352
Total acreage under lease 23,300
Productive of oil and/or gas 643
Non-productive of oil and/or gas 22,657
Percentage of total land area leased 52%
Percentage of leased acreage productive of oil and/or gas 3%

First year of production:
Crude oil 1951
Natural gas 1907

Year and amount of peak production:
Crude oil—52,652 *thous. bbls.* 1984
Natural gas—77,339 *MMcf* 1984

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 14,636
Dry hole 15,380

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	5,066	*51%*
Gas wells	96	*1%*
Dry holes	4,849	*48%*
Total	10,011	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	989	146	1,135	1,750
Production	731	77	808	1,077

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.39
Natural gas—*$/Mcf* $2.26

Wellhead value of 1984 production: *thous. $*
Crude oil $1,494,790
Natural gas $174,786
Total $1,669,576

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $9,539,142

Rank among principal mineral production and percentage of total mineral value:
Crude oil--ranked 1st 80%
Natural gas—ranked 2nd 9%

State and local severance and production taxes paid in 1984—*thous. $* $160,436

Number of employees in the oil and gas extraction industry in 1984 5,775

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 74
Rotary drilling rigs active 51

Number of wells drilled:

	Exploratory	Development	Total
Oil	63	278	341
Gas	1	2	3
Dry	188	102	290
Service	—	0	0
Total	252	382	634

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	586.0	2,602.7	3,188.7
Gas	14.1	3.4	17.5
Dry	1,565.9	837.0	2,402.9
Service	—	0	0
Total	2,166.0	3,443.1	5,609.1

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 162
New-field wildcat footage-*thous. ft* 1,320.4

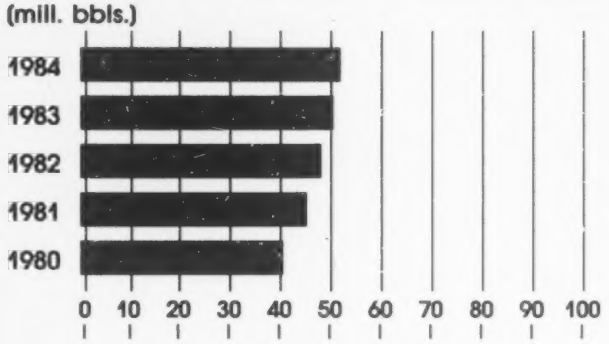
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	15th	25th
Production	9th	17th
Proved reserves	9th	19th

Number of producing wells as of *12/31/84:*
Crude oil 3,404
Natural gas 90
Total 3,494

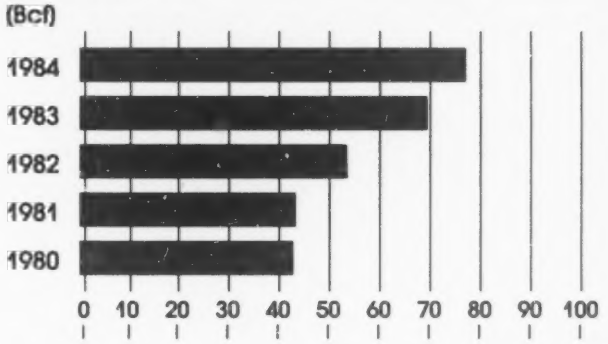
Percentage of oil wells on artificial lift 76%

Average daily production: *(thous. b/d)*
Crude oil 144
NGL 16
Total 160
Natural gas marketed production—*MMcf.* 77,339

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	72	4	76
Production	51	6	57
Net annual change	21	−2	−19
Proved reserves	258	69	327

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	59	−16	43
Production	50	16	66
Net annual change	9	−32	−23
Proved reserves	257	416	673

Total estimated drilling cost $377,259,445
Cost per well $765,232
Cost per foot $84.49

Number of producing stripper wells—*12/31/83* 922
Number of stripper well abandonments 24
Crude oil stripper production—*thous. bbls.* 1,537
Percentage of crude oil produced by stripper wells 3%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 35,085
Secondary 27,565
Total 62,650

STATE ENERGY CONTACT

North Dakota Industrial Commission
Oil and Gas Division
Capitol Building
Bismarck, ND 58505
Ph. 701-224-2969

Ohio

HISTORICAL INFORMATION

Number of counties	88
With oil and/or gas production	68
Land area—*thous. acres*	26,243
Total acreage under lease	15,209
Productive of oil and/or gas	3,329
Non-productive of oil and/or gas	11,880
Percentage of total land area leased	58%
Percentage of leased acreage productive of oil and/or gas	22%
First year of production:	
Crude oil	1860
Natural gas	1884
Year and amount of peak production:	
Crude oil—23,941 *thous. bbls.*	1896
Natural gas—158,015 *MMcf*	1984

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	8,488
Dry hole	11,442

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	70,421	46%
Gas wells	48,041	31%
Dry holes	36,281	23%
Total	154,743	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	1,036	8	1,044	8,134
Production	906	8	914	6,103

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$27.71
Natural gas—*$/Mcf*	$3.16
Wellhead value of 1984 production: *thous. $*	
Crude oil	$423,159
Natural gas	$499,327
Total	$922,486
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$4,447,020

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 3rd	17%
Natural gas—ranked 2nd	20%
State and local severance and production taxes paid in 1984—*thous. $*	$4,396
Number of employees in the oil and gas extraction industry in 1984	11,706

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 12
Rotary drilling rigs active 51

Number of wells drilled:

	Exploratory	Development	Total
Oil	3	513	516
Gas	31	1,574	1,605
Dry	21	117	138
Service	—	11	11
Total	55	2,215	2,270

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	10.8	1,608.6	1,619.4
Gas	107.8	6,080.8	6,188.7
Dry	64.5	373.5	438.0
Service	—	16.0	16.0
Total	183.1	8,078.9	8,262.2

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 12
New-fieid wildcat footage-*thous. ft* 38.4

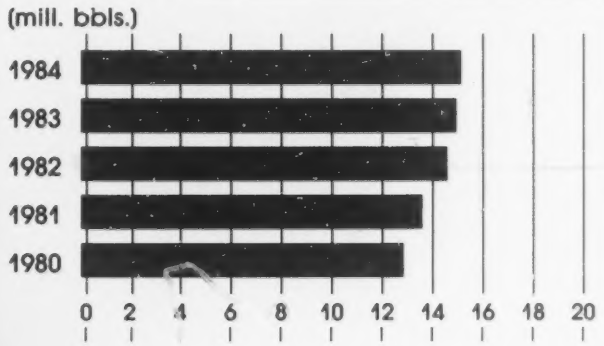
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	11th	3rd
Production	18th	12th
Proved reserves	16th	13th

Number of producing wells as of *12/31/84:*
Crude oil 26,878
Natural gas 27,846
Total 54,724

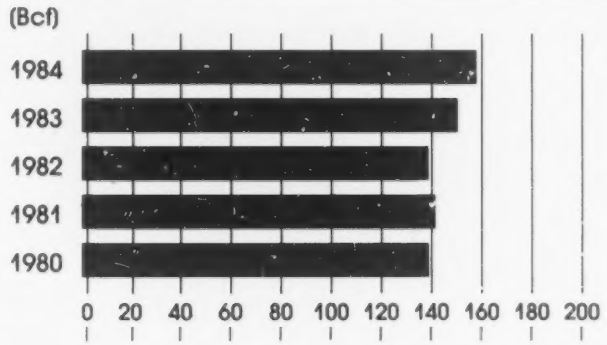
Percentage of oil wells on artificial lift 98%

Average daily production: *(thous. b/d)*
Crude oil 42
NGL 0
Total 42
Natural gas marketed production—*MMcf.* 158,015

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	37	0	37
Production	18	0	18
Net annual change	19	—	19
Proved reserves	130	Unavailable	130

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	800	268	1,068
Production	149	30	179
Net annual change	651	238	889
Proved reserves	1,635	396	2,031

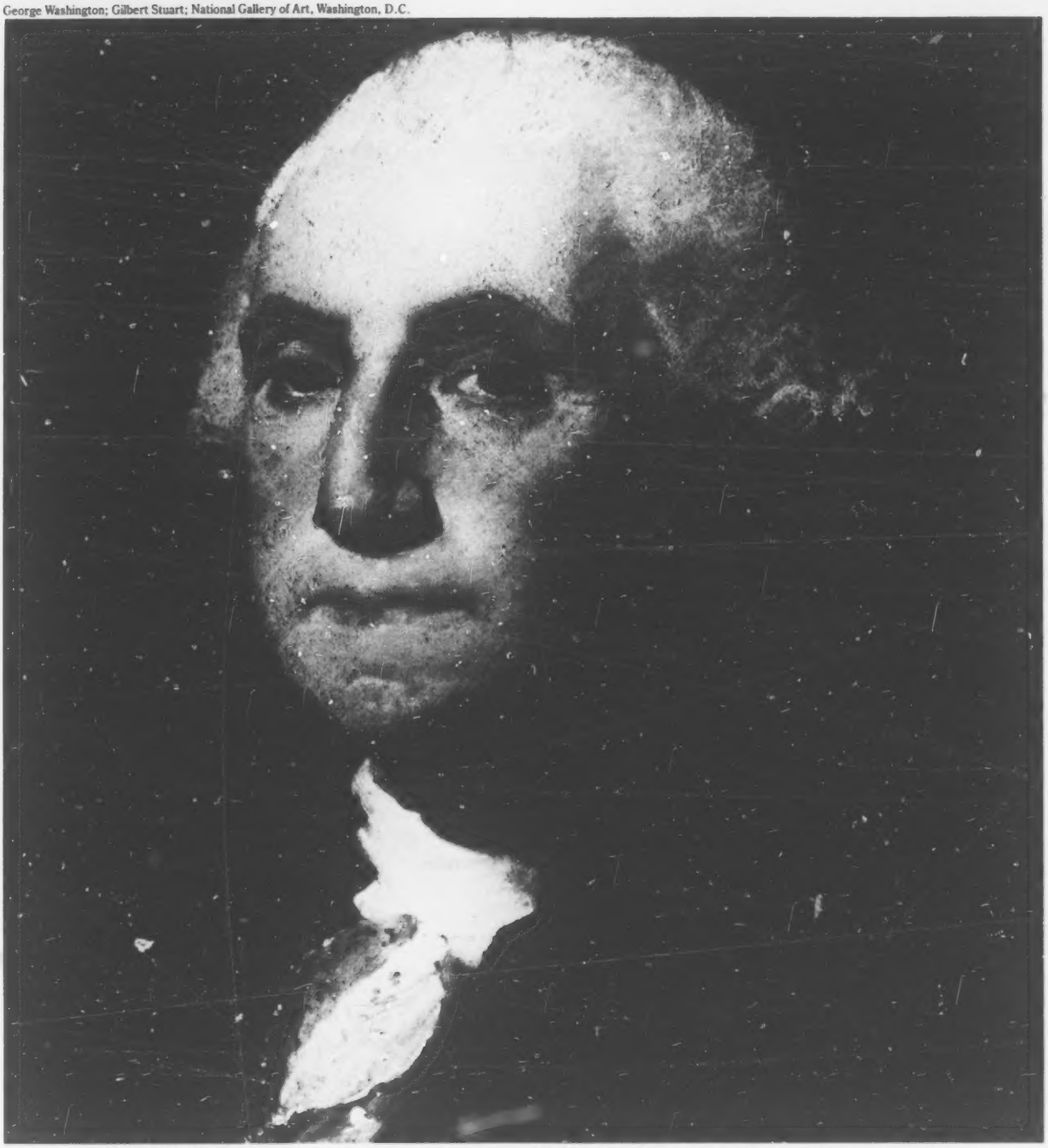
Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 24,263
Number of stripper well abandonments 297
Crude oil stripper production—*thous. bbls.* 10,480
Percentage of crude oil produced by stripper wells 70%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 92,223
Secondary 305
Total 92,528

STATE ENERGY CONTACT

Ohio Department of Natural Resources
Division of Oil and Gas
Fountain Square, Building A
Columbus, OH 43224
Ph. 614-265-6917

George Washington; Gilbert Stuart; National Gallery of Art, Washington, D.C.



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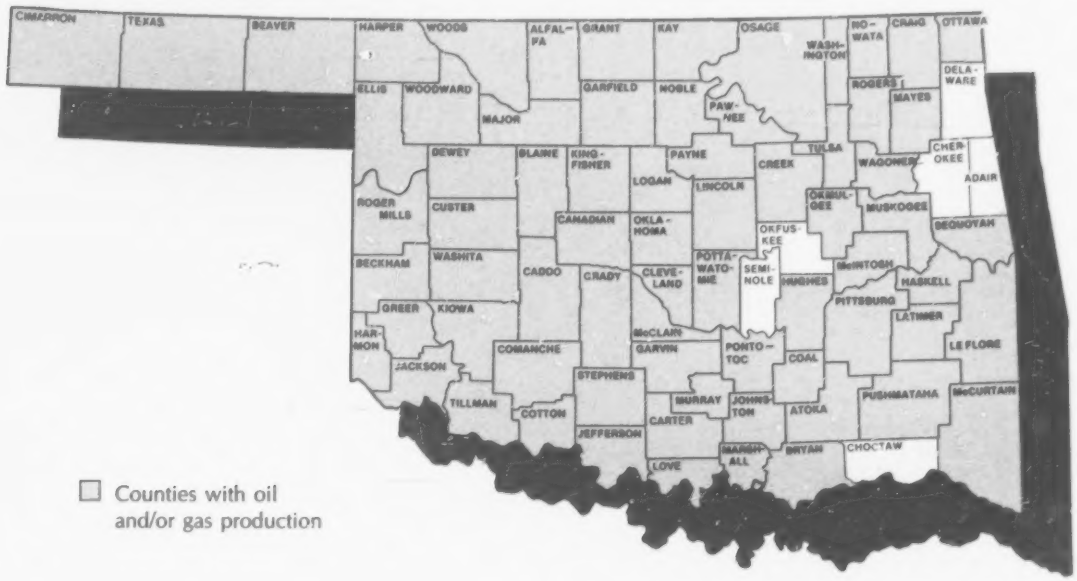


☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 77
With oil and/or gas production 71

Land area—*thous. acres* 43,939
Total acreage under lease 19,200
Productive of oil and/or gas 7,211
Non-productive of oil and/or gas 11,989
Percentage of total land area leased 44%
Percentage of leased acreage productive of oil and/or gas 38%

First year of production:
Crude oil 1891
Natural gas 1902

Year and amount of peak production:
Crude oil—277,775 *thous. bbls.* 1927
Natural gas—2,079,673 *MMcf* 1984

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 24,969
Dry hole 31,441

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	224,495	*60%*
Gas wells	42,370	*11%*
Dry holes	107,615	*29%*
Total	374,480	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	13,321	3,438	16,759	74,832
Production	12,390	2,609	14,999	57,571

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $29.11
Natural gas—*$/Mcf* $2.69

Wellhead value of 1984 production: *thous. $*
Crude oil $4,901,687
Natural gas $5,594,320
Total $10,496,007

Cumulative crude wellhead value as of 12/31/84: *thous. $* $57,050,741

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 2nd 45%
Natural gas—ranked 1st 52%

State and local severance and production taxes paid in 1984—*thous. $* $709,364

Number of employees in the oil and gas extraction industry in 1984 69,758

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 231
Rotary drilling rigs active 319

Number of wells drilled:

	Exploratory	Development	Total
Oil	87	4,367	4,454
Gas	50	1,589	1,639
Dry	334	1,918	2,252
Service	—	49	49
Total	471	7,923	8,394

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	591.9	18,690.0	19,281.8
Gas	403.2	10,321.2	10,724.5
Dry	2,017.3	9,323.7	11,391.0
Service	—	114.5	114.5
Total	3,012.4	38,449.4	41,511.8

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 142
New-field wildcat footage-*thous. ft* 965.8

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	2nd	2nd
Production	5th	3rd
Proved reserves	6th	4th

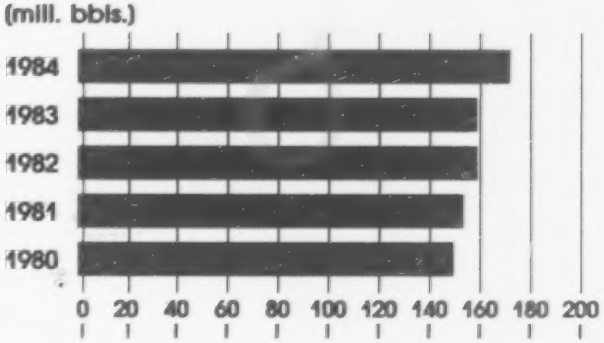
Number of producing wells as of *12/31/84:*
Crude oil 99,600
Natural gas 23,647
Total 123,247

Percentage of oil wells on artificial lift 95%

Average daily production: *(thous. b/d)*
Crude oil 460
NGL 219
Total 679
Natural gas marketed production—*MMcf.* 2,079,673

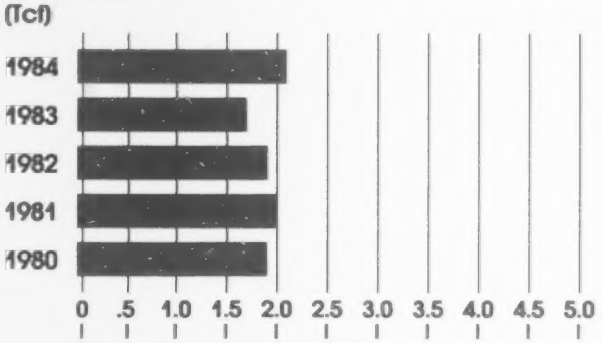
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Tcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	100	164	264
Production	140	80	220
Net annual change	−40	84	44
Proved reserves	931	829	1,760

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	166	1,599	1,765
Production	323	1,321	1,644
Net annual change	−157	278	121
Proved reserves	2,269	14,992	17,261

Total estimated drilling cost $3,696,986,428
Cost per well $447,794
Cost per foot $90.86

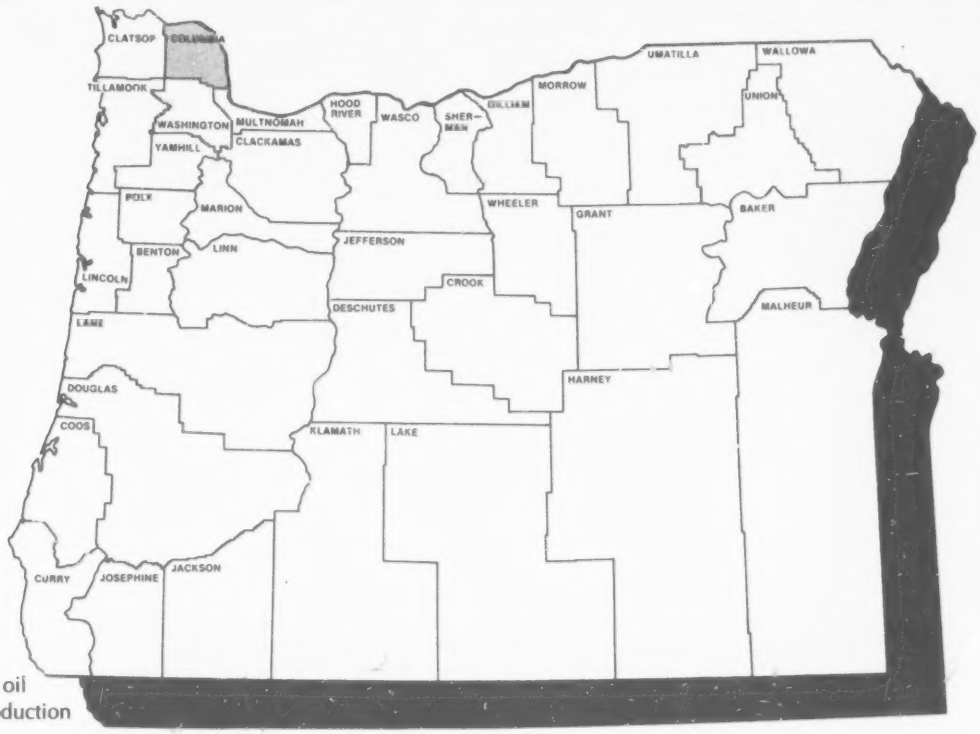
Number of producing stripper wells—*12/31/83* 77,729
Number of stripper well abandonments 1,093
Crude oil stripper production—*thous. bbls.* 94,430
Percentage of crude oil produced by stripper wells 61%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 286,902
Secondary 323,528
Total 610,430

STATE ENERGY CONTACT

Oklahoma Corporation Commission
Oil and Gas Division
Jim Thorpe Building
Oklahoma City, OK 73105
Ph. 405-521-2301

Oregon



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 36
With oil and/or gas production 1

Land area—*thous. acres* 61,558
Total acreage under lease 5,025
Productive of oil and/or gas 25
Non-productive of oil and/or gas 5,000
Percentage of total land area leased 8%
Percentage of leased acreage productive of oil and/or gas 0%

First year of production:
Crude oil ..... Not Applicable
Natural gas 1979

Year and amount of peak production:
Crude oil ..... Not Applicable
Natural gas—5 *MMcf* 1983

Deepest well drilled: *ft.*
Crude oil ..... Not Applicable
Natural gas 3,027
Dry hole 13,177

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	0	0%
Gas wells	11	4%
Dry holes	282	96%
Total	293	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	0	Unavailable	—	30
Production	0	Unavailable	—	19

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* ..... Not Applicable
Natural gas—*$/Mcf* $2.75

Wellhead value of 1984 production: *thous. $*
Crude oil ..... Not Applicable
Natural gas $8
Total $8

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* ..... Not Applicable

Rank among principal mineral production and percentage of total mineral value:
Crude oil ..... Not Applicable
Natural gas—ranked 8th 0.01%

State and local severance and production taxes paid in 1984—*thous. $* $318

Number of employees in the oil and gas extraction industry in 1984 181

1984 INDUSTRY STATISTICS

Seismic crew months worked 33
Rotary drilling rigs active 1

Number of wells drilled:

	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	1	0	1
Service	—	0	0
Total	1	0	1

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	3.5	0	3.5
Service	—	0	0
Total	3.5	0	3.5

Number of new-field wildcats drilled 1
New-field wildcat footage-*thous. ft* 3.5

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	Not Applicable	Not Applicable
Production	Not Applicable	31st
Proved reserves	Not Applicable	Unavalable

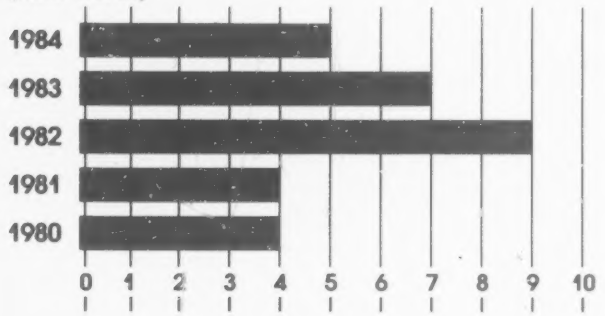
Number of producing wells as of *12/31/84:*
Crude oil 0
Natural gas ..... Unavailable
Total ..... Unavailable

Percentage of oil wells on artificial lift ..... Not Applicable

Average daily production: *(thous. b/d)*
Crude oil 0
NGL 0
Total 0
Natural gas marketed production—*MMcf.* 3

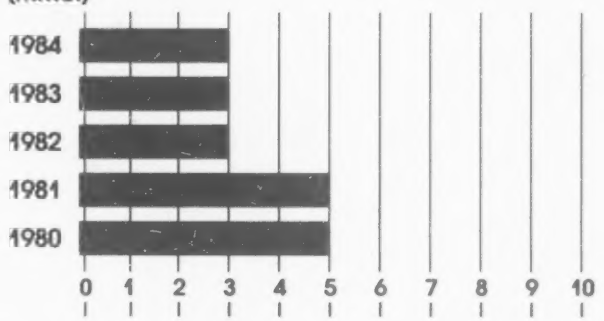
ACREAGE UNDER LEASE

(mill. acres)



NATURAL GAS PRODUCTION

(MMcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	0	0	—
Production	0	0	—
Net annual change	—	—	—
Proved reserves	0	Unavailable	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

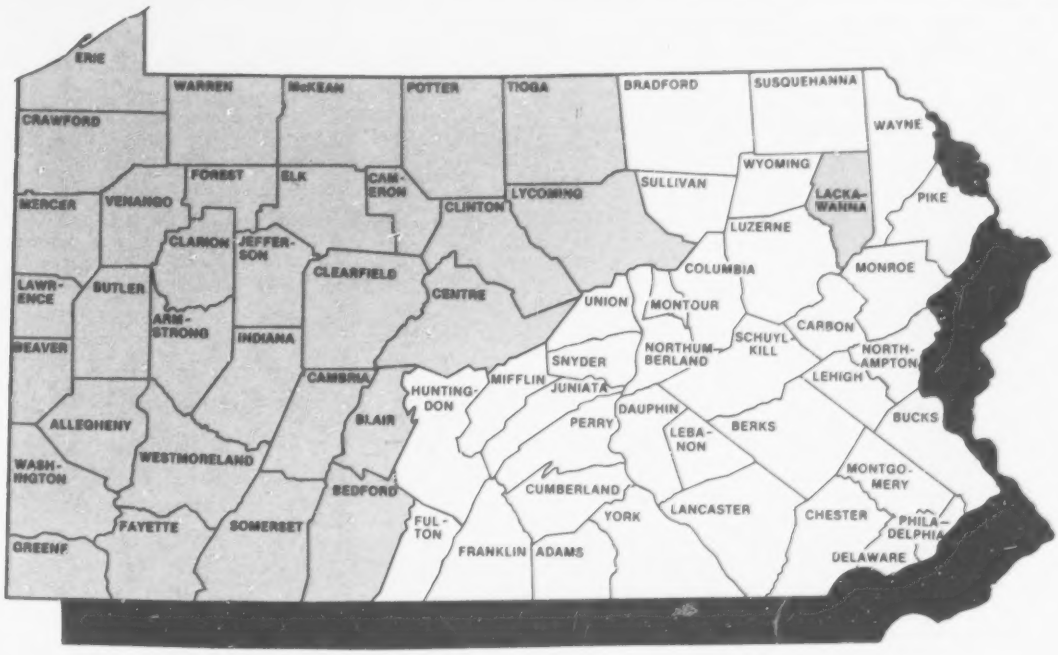
Number of producing stripper wells—*12/31/83* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of crude oil produced by stripper wells ..... N/A

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 0
Secondary 0
Total 0

STATE ENERGY CONTACT

Oregon Department of Geology and Mineral Industries
1005 State Office Building
Portland, OR 97201
Ph. 503-229-5580

Pennsylvania



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 67
With oil and/or gas production 32

Land area—*thous. acres* 28,728
Total acreage under lease 17,997
Productive of oil and/or gas 3,047
Non-productive of oil and/or gas 14,950
Percentage of total land area leased 63%
Percentage of leased acreage productive of oil and/or gas 17%

First year of production:
Crude oil 1859
Natural gas 1881

Year and amount of peak production:
Crude oil—31,424 *thous. bbls.* 1891
Natural gas—145,934 *MMcf* 1954

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 19,365
Dry hole 21,460

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	247,712	*79%*
Gas wells	27,285	*9%*
Dry holes	38,320	*12%*
Total	313,317	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,348	15	1,363	11,587
Production	1,307	15	1,322	9,705

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.71
Natural gas—*$/Mcf* $3.00

Wellhead value of 1984 production: *thous. $*
Crude oil $118,710
Natural gas $348,630
Total $467,340

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $3,739,950

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 5th 3%
Natural gas—ranked 2nd 10%

State and local severance and production taxes paid in 1984—*thous. $* ..... Unavailable

Number of employees in the oil and gas extraction industry in 1984 5,400

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 3
Rotary drilling rigs active 36

Number of wells drilled:

	Exploratory	Development	Total
Oil	2	404	406
Gas	40	689	729
Dry	7	17	24
Service	—	7	7
Total	49	1,117	1,166

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	2.2	434.0	436.2
Gas	188.5	2,520.9	2,709.4
Dry	37.4	42.8	80.2
Service	—	12.0	12.0
Total	228.0	3,009.7	3,237.7

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 8
New-field wildcat footage-*thous. ft* 40.9

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	13th	6th
Production	23rd	15th
Proved reserves	22nd	14th

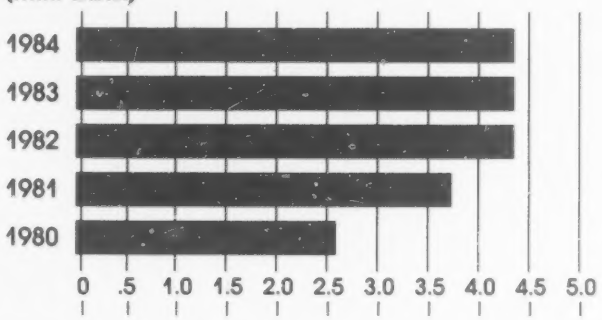
Number of producing wells as of *12/31/84:*
Crude oil 20,739
Natural gas 24,000
Total 44,739

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 12
NGL 0
Total 12
Natural gas marketed production—*MMcf.* 116,210

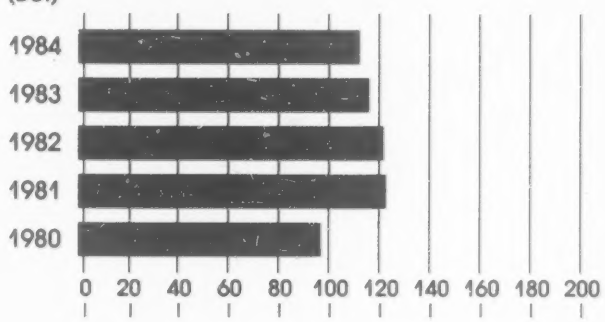
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	7	Unavailable	7
Production	3	—	3
Net annual change	4	—	4
Proved reserves	41	Unavailable	41

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	9	564	573
Production	2	119	121
Net annual change	7	445	452
Proved reserves	21	1,861	1,882

Total estimated drilling cost . . . . . Unavailable
Cost per well . . . . . Unavailable
Cost per foot . . . . . Unavailable

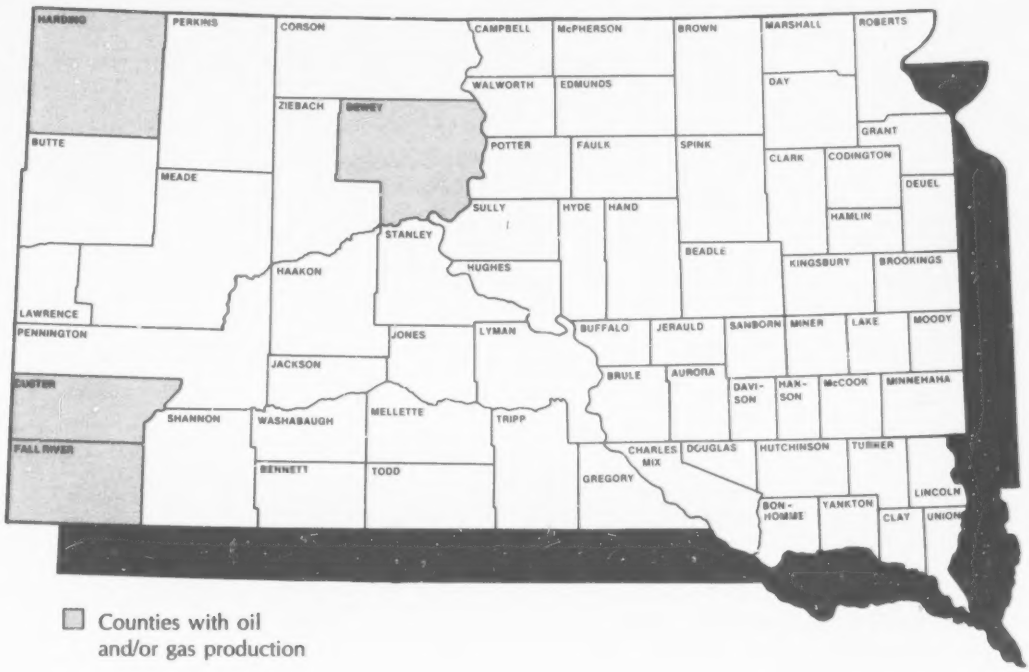
Number of producing stripper wells—*12/31/83* 21,831
Number of stripper well abandonments 880
Crude oil stripper production—*thous. bbls.* 3,951
Percentage of crude oil produced by stripper wells 88%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 21,540
Secondary 49,470
Total 71,010

STATE ENERGY CONTACT

Pennsylvania Department of Environmental Resources
Oil and Gas Division
P.O. Box 2063
Harrisburg, PA 17120
Ph. 717-787-2814

South Dakota



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 67
With oil and/or gas production 4

Land area—*thous. acres* 48,609
Total acreage under lease 8,120
Productive of oil and/or gas 36
Non-productive of oil and/or gas 8,084
Percentage of total land area leased 17%
Percentage of leased acreage productive of oil and/or gas 0%

First year of production:
Crude oil 1953
Natural gas 1899

Year and amount of peak production:
Crude oil—1,340 *thous. bbls.* 1984
Natural gas—2,311 *MMcf* 1982

Deepest well drilled: *ft.*
Crude oil 9,150
Natural gas ..... Unavailable
Dry hole 9,771

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	187	*18%*
Gas wells	69	6%
Dry holes	804	*76%*
Total	1,060	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	Unavailable	—	Unavailable
Production	Unavailable	Unavailable	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $28.36
Natural gas—*$/Mcf* $3.65

Wellhead value of 1984 production: *thous. $*
Crude oil $38,002
Natural gas $6,406
Total $44,408

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $223,756

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 2nd 14%
Natural gas—ranked 7th 2%

State and local severance and production taxes paid in 1984—*thous. $* $1,557

Number of employees in the oil and gas extraction industry in 1984 154

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 4
Rotary drilling rigs active 2
Number of wells drilled:

	Exploratory	Development	Total
Oil	2	9	11
Gas	1	0	1
Dry	12	4	16
Service	—	0	0
Total	15	13	28

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	7.7	80.7	88.4
Gas	3.8	0	3.8
Dry	53.2	30.1	83.3
Service	—	0	0
Total	64.7	110.8	175.5

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 13
New-field wildcat footage-*thous. ft* 51.8

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	27th	26th
Production	26th	26th
Proved reserves	Unavailable	Unavailable

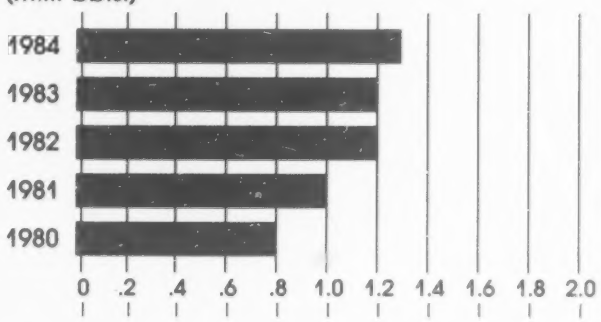
Number of producing wells as of *12/31/84:*
Crude oil 138
Natural gas ..... Unavailable
Total 138

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 4
NGL 0
Total 4
Natural gas marketed production—*MMcf.* 1,755

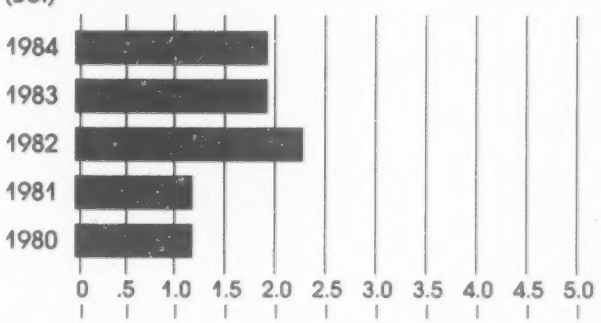
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net annual change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

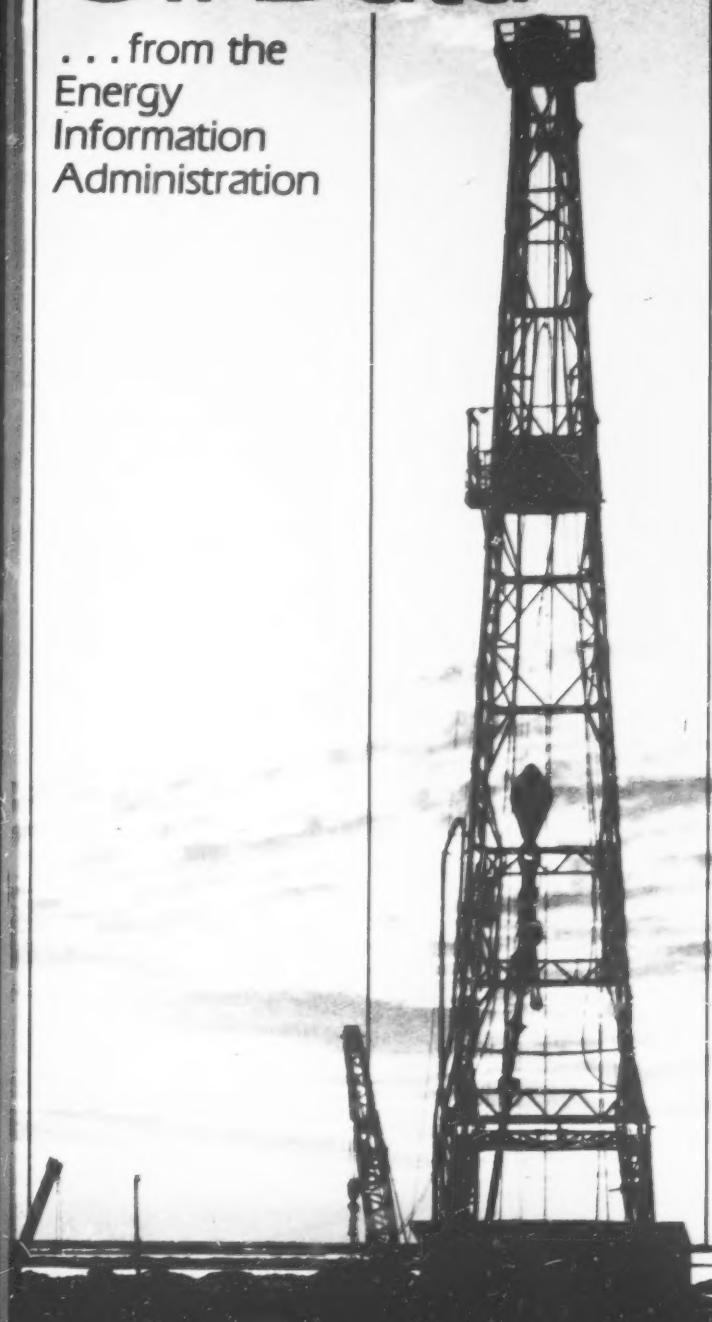
Number of producing stripper wells—*12/31/83* 33
Number of stripper well abandonments 4
Crude oil stripper production—*thous. bbls.* 44
Percentage of crude oil produced by stripper wells 4%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 250
Secondary 0
Total 250

STATE ENERGY CONTACT

South Dakota Geological Survey
University of South Dakota
Science Center
Vermillion, SD 57069
Ph. 605-677-5227

Oil Data

. . . from the Energy Information Administration



- Weekly Petroleum Status Report
- Monthly Petroleum Statement (Annual also available)
- Monthly Petroleum Statistics Report
- Availability of Heavy Fuel Oils by Sulfur Content
- Supply, Disposition, and Stocks of All Oils by P.A.D. District and Imports into the United States by Country (Annual)
- Deliveries of Fuel Oil and Kerosene
- Sales of Liquified Petroleum Gases and Ethane
- Petroleum Refineries in the United States and U.S. Territories
- U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (Annual)
- The Oil and Gas Drilling Industry
- Chronology of Oil and Gas Regulations
- Residential Energy Consumption Survey: Consumption and Expenditures
  - Part I National Data
  - Part II Regional Data
- The National Interim Energy Consumption Survey: Exploring the Variability in Energy Consumption
- Substitution of Coal for Oil and Gas in the Industrial Sector
- A Comparison of Energy Expenditures by Elderly and Nonelderly Households—1975 and 1985
- Fuel Choice for Heating New Single Family Homes
- International Energy Annual
- Monthly Energy Review
- Annual Report to Congress, Volumes I, II, III
- Short-Term Energy Outlook
- Costs and Indexes for Domestic Oil and Gas Field Equipment and Production Operations, 1980
- Monthly Petroleum Product Price Report
- Petroleum Market Shares: Report on Retail Sales of Gasoline
- Petroleum Market Shares: Report on Sales of Refined Petroleum Products
- Prices and Margins of No. 2 Distillate Fuel Oil
- Weekly Oil Update
- Performance Profiles of Major Energy Producers (Annual)
- Annual Energy Balance
- State Energy Data Report

For ordering information, contact:
U.S. Department of Energy
Energy Information Administration
National Energy Information Center, EI-23,
Forrestal Building, 1F-048,
Code H-3
1000 Independence Avenue,
Washington, D.C. 20585
(202) 252-8800

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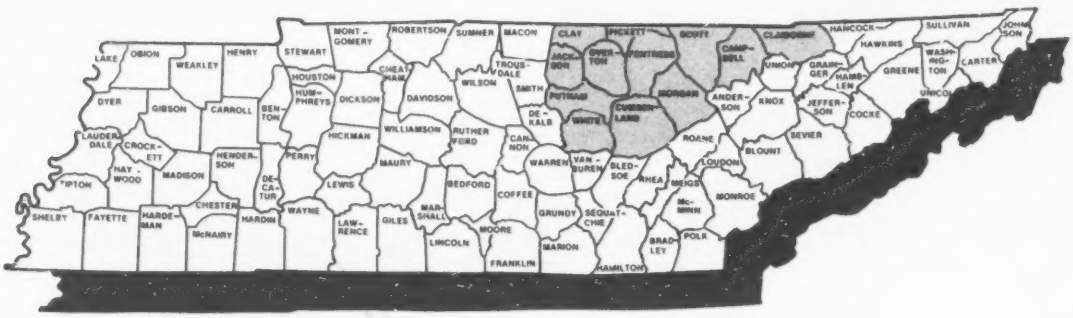


■ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	95
With oil and/or gas production	12
Land area—*thous. acres*	26,339
Total acreage under lease	3,827
Productive of oil and/or gas	12
Non-productive of oil and/or gas	3,815
Percentage of total land area leased	14%
Percentage of leased acreage productive of oil and/or gas	0%
First year of production:	
Crude oil	1860
Natural gas	1889
Year and amount of peak production:	
Crude oil—1,132 *thous. bbls.*	1982
Natural gas—4,320 *MMcf*	1984

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	4,624
Dry hole	11,540

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	1,473	*27%*
Gas wells	1,325	*25%*
Dry holes	2,569	*48%*
Total	5,367	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$26.00
Natural gas—*$/Mcf*	$3.00
Wellhead value of 1984 production: *thous. $*	
Crude oil	$23,920
Natural gas	$12,960
Total	$36,880
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$211,323

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 6th	4%
Natural gas—ranked 8th	2%
State and local severance and production taxes paid in 1984—*thous. $*	$1,201
Number of employees in the oil and gas extraction industry in 1984	571

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 19
Rotary drilling rigs active ..... Unavailable
Number of wells drilled:

	Exploratory	Development	Total
Oil	13	29	42
Gas	19	26	45
Dry	19	12	31
Service	—	0	0
Total	51	67	118

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	20.3	38.8	59.1
Gas	36 8	41.6	78.4
Dry	31.7	11.4	43.1
Service	—	0	0
Total	88.8	91.8	180.6

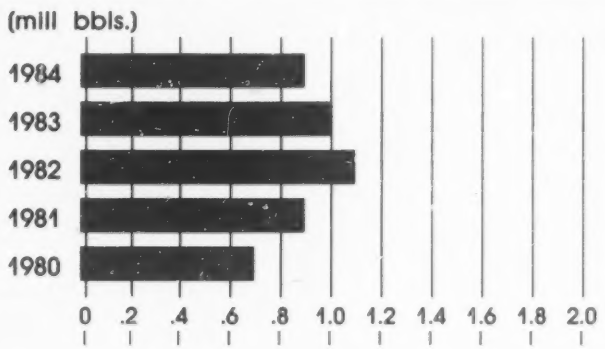
(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 51
New-field wildcat footage-*thous. ft* 88.8

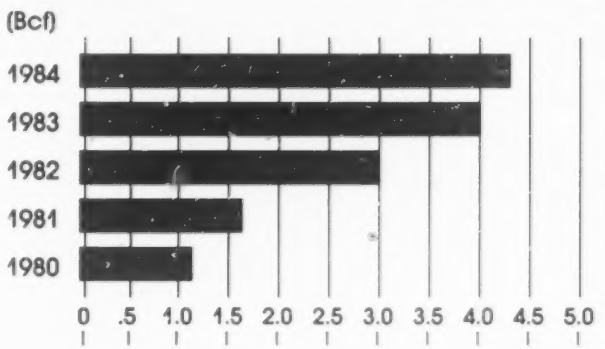
State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	24th	20th
Production	27th	23rd
Proved reserves	Unavailable	Unavailable

Number of producing wells as of *12/31/84:*
Crude oil 775
Natural gas 726
Total 1,501
Percentage of oil wells on artificial lift 82%
Average daily production: *(thous. b/d)*
Crude oil 3
NGL 0
Total 3
Natural gas marketed production—*MMcf.* 4,320

CRUDE OIL PRODUCTION



NATURAL GAS PRODUCTION



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	—	—	Unavailable
Production	—	—	—
Net annual change	—	—	—
Proved reserves	—	—	Unavailable

Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 716
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 584
Percentage of crude oil produced by stripper wells 51%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 1,030
Secondary 170
Total 1,200

STATE ENERGY CONTACT

Tennessee Department of Conservation
Oil and Gas Division
701 Broadway Street
Nashville, TN 37203
Ph. 615-742-6747

Texas

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	254
With oil and/or gas production	215
Land area—*thous. acres*	167,691
Total acreage under lease	68,374
Productive of oil and/or gas	16,500
Non-productive of oil and/or gas	51,874
Percentage of total land area leased	41%
Percentage of leased acreage productive of oil and/or gas	24%
First year of production:	
Crude oil	1889
Natural gas	1889
Year and amount of peak production:	
Crude oil—1,301,685 *thous. bbls.*	1972
Natural gas—8,657,840 *MMcf*	1972

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	26,536
Dry hole	29,670

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	471,997	58%
Gas wells	69,974	9%
Dry holes	263,153	33%
Total	805,124	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	63,267	13,441	76,708	303,567
Production	55,728	10,404	66,132	249,764

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$28.87
Natural gas—*$/Mcf*	$2.30
Wellhead value of 1984 production: *thous. $*	
Crude oil	$26,120,825
Natural gas	$14,099,534
Total	$40,220,359
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$288,820,805

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 1st	62%
Natural gas—ranked 2nd	33%
State and local severance and production taxes paid in 1984—*thous. $*	$2,215,647
Number of employees in the oil and gas extraction industry in 1984	260,738

1984 INDUSTRY STATISTICS

Seismic crew months worked 1,199
Rotary drilling rigs active 850
Number of wells drilled:

	Exploratory	Development	Total
Oil	608	13,361	13,969
Gas	579	2,281	2,860
Dry	3,246	3,700	6,946
Service	—	671	671
Total	4,433	20,013	24,446

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	3,863.4	58,586.0	62,449.4
Gas	4,298.8	16,242.6	20,541.4
Dry	18,340.2	15,235.6	33,575.7
Service	—	2,499.9	2,499.9
Total	26,502.4	92,564.1	119,066.4

(Note: Totals may not add due to rounding.)

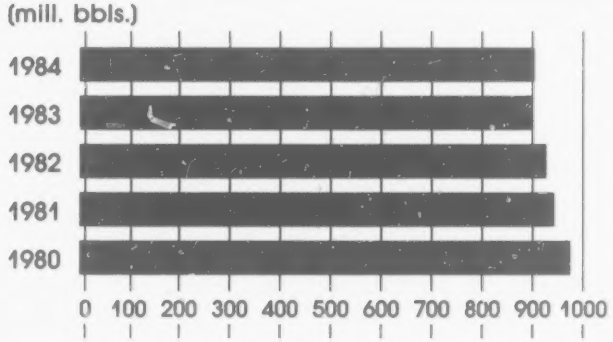
Number of new-field wildcats drilled 1,456
New-field wildcat footage-*thous. ft* 10,175.4

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	1st	1st
Proved reserves	1st	1st

Number of producing wells as of *12/31/84:*
Crude oil 203,664
Natural gas 44,834
Total 248,498
Percentage of oil wells on artificial lift 93%
Average daily production: *(thous. b/d)*
Crude oil 2,472
NGL 882
Total 3,354
Natural gas marketed production—*MMcf* 6,130,232

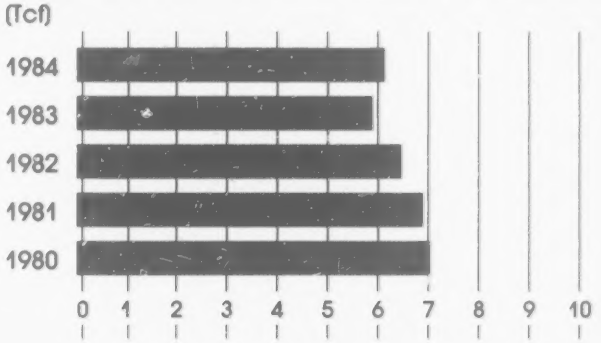
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Tcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	778	589	1,367
Production	855	322	1,177
Net annual change	−77	267	190
Proved reserves	7,539	3,038	10,577

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	1,175	5,353	6,528
Production	1,275	4,581	5,856
Net annual change	−100	772	672
Proved reserves	10,973	42,830	53,803

Total estimated drilling cost $7,860,525,900
Cost per well $347,074
Cost per foot $71.61

Number of producing stripper wells—*12/31/83* 117,178
Number of stripper well abandonments 3,980
Crude oil stripper production—*thous. bbls.* 153,689
Percentage of crude oil produced by stripper wells 18%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 1,073,132
Secondary 1,031,048
Total 2,104,180

STATE ENERGY CONTACT

Texas Railroad Commission
Office of Information Services
P.O. Drawer 12967
Austin, TX 78711
Ph. 512-463-6710

Utah

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 29
With oil and/or gas production 12

Land area—*thous. acres* 52,527
Total acreage under lease 38,230
Productive of oil and/or gas 504
Non-productive of oil and/or gas 37,726
Percentage of total land area leased 73%
Percentage of leased acreage productive of oil and/or gas 1%

First year of production:
Crude oil 1907
Natural gas 1886

Year and amount of peak production:
Crude oil—42,301 *thous. bbls.* 1975
Natural gas—107,000 *MMcf* 1983

Deepest well drilled: *ft.*
Crude oil 17,732
Natural gas ..... Unavailable
Dry hole 21,874

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	3,050	39%
Gas wells	1,256	16%
Dry holes	3,465	45%
Total	7,771	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	962	418	1,380	4,157
Production	775	73	848	1,685

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $27.21
Natural gas—*$/Mcf* $3.63

Wellhead value of 1984 production: *thous. $*
Crude oil $943,888
Natural gas $189,849
Total $1,133,737

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $6,925,083

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 1st 44%
Natural gas—ranked 4th 9%

State and local severance and production taxes paid in 1984—*thous. $* $38,443

Number of employees in the oil and gas extraction industry in 1984 4,961

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 121
Rotary drilling rigs active 45
Number of wells drilled:

	Exploratory	Development	Total
Oil	16	206	222
Gas	4	73	77
Dry	70	55	125
Service	—	0	0
Total	90	334	424

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	107.5	1,550.1	1,657.7
Gas	27.2	461.6	488.8
Dry	473.8	288.0	761.8
Service	—	0	0
Total	608.5	2,299.7	2,908.3

(Note: Totals may not add due to rounding.)

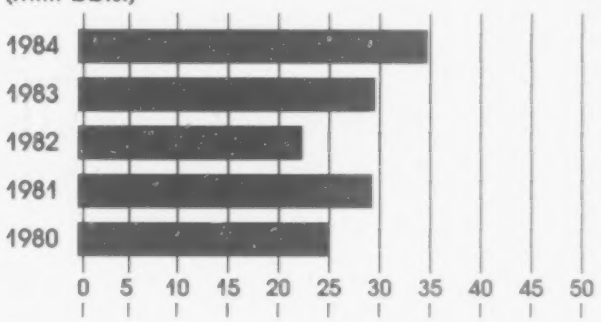
Number of new-field wildcats drilled 81
New-field wildcat footage-*thous. ft* 531.2

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	18th	16th
Production	10th	18th
Proved reserves	13th	10th

Number of producing wells as of *12/31/84:*
Crude oil 1,799
Natural gas 659
Total 2,458
Percentage of oil wells on artificial lift 80%
Average daily production: *(thous. b/d)*
Crude oil 95
NGL 21
Total 116
Natural gas marketed production—*MMcf* 52,300

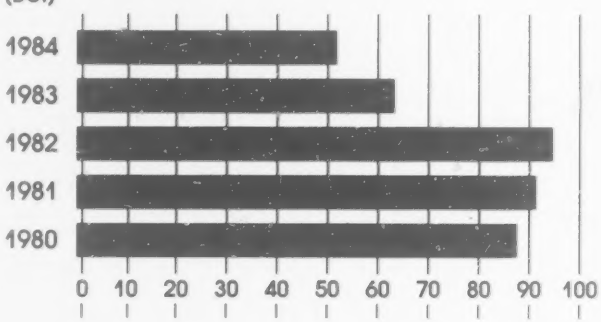
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	36	61	97
Production	22	8	30
Net annual change	14	46	60
Proved reserves	187	331	518

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	58	233	291
Production	23	49	72
Net annual change	35	184	219
Proved reserves	360	2,112	2,472

Total estimated drilling cost $503,977,690
Cost per well $1,292,251
Cost per foot $211.65

Number of producing stripper wells—*12/31/83* 217
Number of stripper well abandonments 24
Crude oil stripper production—*thous. bbls.* 543
Percentage of crude oil produced by stripper wells 2%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 5,375
Secondary 4,055
Total 9,430

STATE ENERGY CONTACT

Utah Geological and Mining Survey
Divison of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, UT 84114
Ph. 801-581-6831

Virginia

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties 96
With oil and/or gas production 9

Land area—*thous. acres* 25,411
Total acreage under lease 3,236
Productive of oil and/or gas 147
Non-productive of oil and/or gas 3,089
Percentage of total land area leased 13%
Percentage of leased acreage productive of oil and/or gas 4%

First year of production:
Crude oil 1943
Natural gas 1931

Year and amount of peak production:
Crude oil—65 *thous. bbls.* 1983
Natural gas—8,903 *MMcf* 1981

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 7,238
Dry hole 17,003

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	60	*10%*
Gas wells	410	*68%*
Dry holes	133	*22%*
Total	603	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $32.00
Natural gas—*$/Mcf* $3.75

Wellhead value of 1984 production: *thous. $*
Crude oil $1,024
Natural gas $14,344
Total $15,368

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $6,628

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 8th 0.07%
Natural gas—ranked 5th 1%

State and local severance and production taxes paid in 1984—*thous. $* ..... Unavailable

Number of employees in the oil and gas extraction industry in 1984 214

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 3
Rotary drilling rigs active . . . . . Unavailable

Number of wells drilled:

	Exploratory	Development	Total
Oil	0	4	4
Gas	0	53	53
Dry	1	5	6
Service	—	0	0
Total	1	62	63

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	0	13.9	13.9
Gas	0	289.2	289.2
Dry	5.6	8.6	14.2
Service	—	0	0
Total	5.6	311.7	317.3

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 1
New-field wildcat footage-*thous. ft* 5.6

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	28th	19th
Production	31st	24th
Proved reserves	Unavailable	22nd

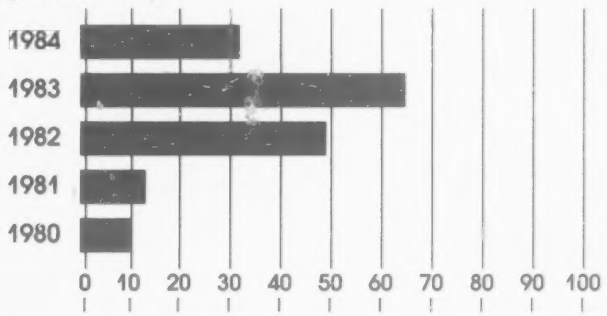
Number of producing wells as of *12/31/84:*
Crude oil . . . . . Unavailable
Natural gas 499
Total 499

Percentage of oil wells on artificial lift . . . . . Unavailable

Average daily production: *(thous. b/d)*
Crude oil . . . . . Less than 1
NGL 0
Total . . . . . Less than 1
Natural gas marketed production—*MMcf* 3,825

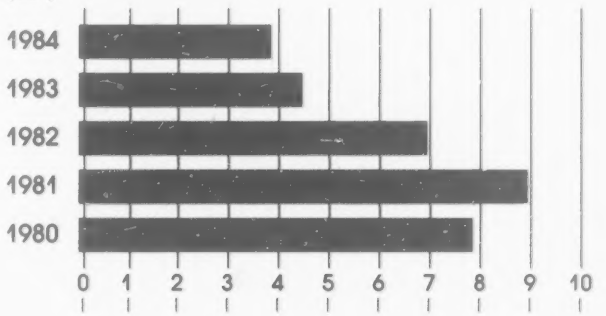
CRUDE OIL PRODUCTION

(thous. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net annual change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	0	57	57
Production	0	4	4
Net annual change	—	53	53
Proved reserves	0	175	175

Total estimated drilling cost . . . . . Unavailable
Cost per well . . . . . Unavailable
Cost per foot . . . . . Unavailable

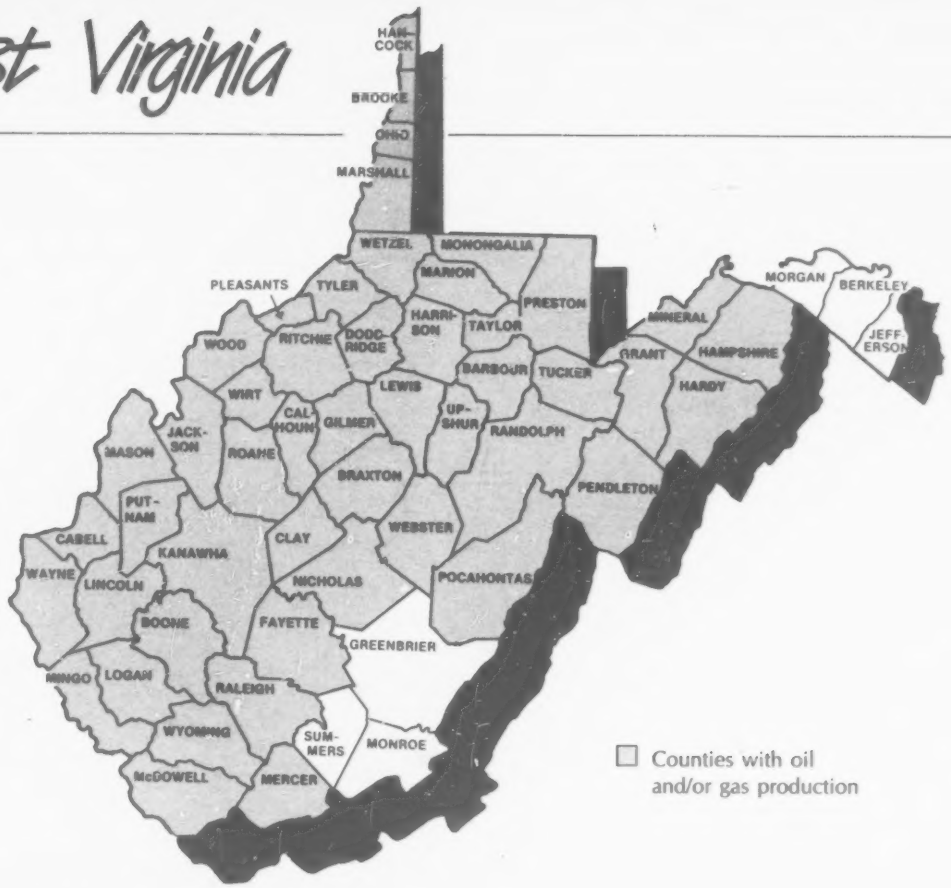
Number of producing stripper wells—*12/31/83* 26
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 22
Percentage of crude oil produced by stripper wells 33%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 60
Secondary 0
Total 60

STATE ENERGY CONTACT

Virginia Energy Division
Office of Oil and Gas
310 Turner Road
Richmond, VA 23225
Ph. 804-786-3611

West Virginia



HISTORICAL INFORMATION

Number of counties 55
With oil and/or gas production 49

Land area—*thous. acres* 15,436
Total acreage under lease 13,408
Productive of oil and/or gas 7,807
Non-productive of oil and/or gas 5,601
Percentage of total land area leased 87%
Percentage of leased acreage productive of oil and/or gas 58%

First year of production:
Crude oil 1860
Natural gas 1885

Year and amount of peak production:
Crude oil—16,196 *thous. bbls.* 1900
Natural gas—242,452 *MMcf* 1970

Deepest well drilled: *ft.*
Crude oil ..... Unavailable
Natural gas 14,300
Dry hole 20,222

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	47,253	*43%*
Gas wells	43,865	*39%*
Dry holes	19,529	*18%*
Total	110,647	*100%*

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	584	345	929	18,082
Production	535	254	789	15,758

VALUE OF OIL AND GAS

Average 1984 wellhead price:
Crude oil—*$/bbl.* $26.90
Natural gas—*$/Mcf* $3.45

Wellhead value of 1984 production: *thous. $*
Crude oil $94,796
Natural gas $476,517
Total $571,313

Cumulative crude oil wellhead value as of 12/31/84: *thous. $* $1,872,353

Rank among principal mineral production and percentage of total mineral value:
Crude oil—ranked 3rd 2%
Natural gas—ranked 2nd 10%

State and local severance and production taxes paid in 1984—*thous. $* $44,200

Number of employees in the oil and gas extraction industry in 1984 6,113

Compiled by IPAA—September 1985

1984 INDUSTRY STATISTICS

Seismic crew months worked 17
Rotary drilling rigs active 38
Number of wells drilled: [1]

	Exploratory	Development	Total
Oil	1	98	99
Gas	17	1,336	1,353
Dry	0	30	30
Service	—	16	16
Total	18	1,480	1,498

Total footage drilled:

(thous ft.)	Exploratory	Development	Total
Oil	3.0	303.9	306.9
Gas	88.0	6,143.4	6,231.4
Dry	0	131.0	131.0
Service	—	37.4	37.4
Total	91.0	6,615.7	6,706.8

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 1
New-field wildcat footage-*thous. ft* 7.7

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	23rd	4th
Production	24th	13th
Proved reserves	20th	11th

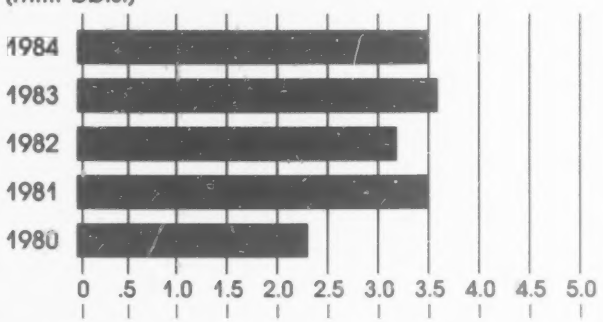
Number of producing wells as of *12/31/84:*
Crude oil 15,475
Natural gas 30,700
Total 46,175

Percentage of oil wells on artificial lift 100%

Average daily production: *(thous. b/d)*
Crude oil 10
NGL 14
Total 24
Natural gas marketed production—*MMcf* 138,121

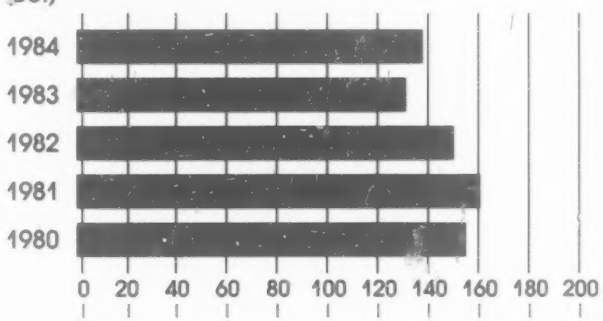
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	4	17	21
Production	3	5	8
Net annual change	1	12	13
Proved reserves	49	91	140

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	8	198	206
Production	5	129	134
Net annual change	3	69	72
Proved reserves	86	2,238	2,324

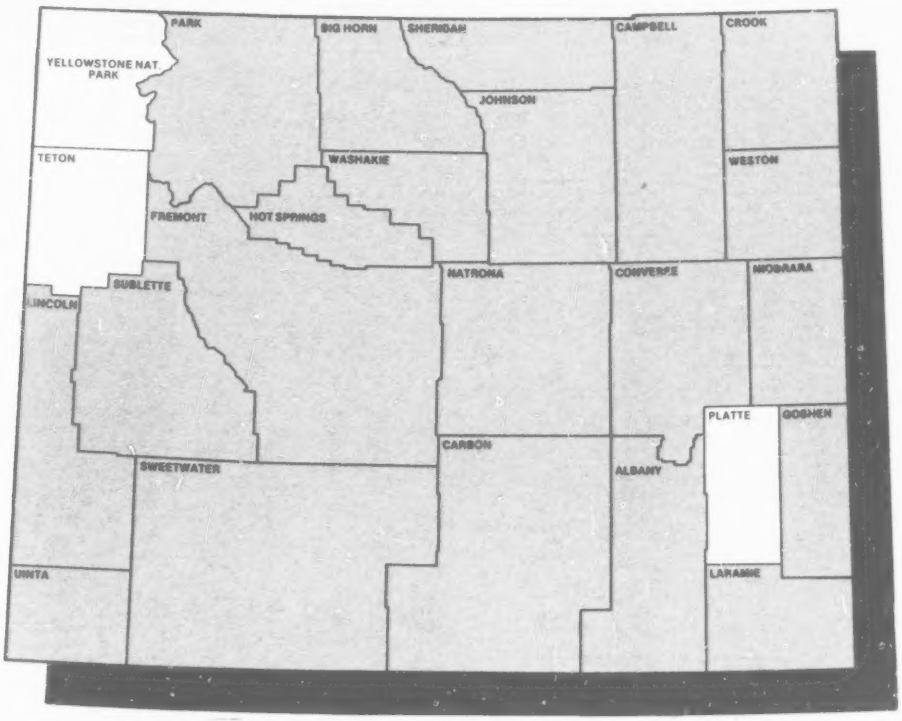
Total estimated drilling cost ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Number of producing stripper wells—*12/31/83* 14,900
Number of stripper well abandonments 20
Crude oil stripper production—*thous. bbls.* 3,117
Percentage of crude oil produced by stripper wells 91%
Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 18,887
Secondary 28,331
Total 47,218

STATE ENERGY CONTACT

West Virginia Department of Mines
Oil and Gas Division
1613 Washington Street, East
Charleston, WV 25311
Ph. 304-348-3500

Wyoming



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	23
With oil and/or gas production	20
Land area—*thous. acres*	62,073
Total acreage under lease	38,999
Productive of oil and/or gas	2,659
Non-productive of oil and/or gas	36,340
Percentage of total land area leased	63%
Percentage of leased acreage productive of oil and/or gas	7%
First year of production:	
Crude oil	1867
Natural gas	1889
Year and amount of peak production:	
Crude oil—160,345 *thous. bbls.*	1970
Natural gas—498,939 *MMcf*	1984

Deepest well drilled: *ft.*	
Crude oil	Unavailable
Natural gas	19,610
Dry hole	25,764

Cumulative number of total wells drilled as of 12/31/84: *(excluding service wells)*

Oil wells	24,907	52%
Gas wells	3,515	7%
Dry holes	19,898	41%
Total	48,320	100%

Cumulative production and reserves added as of 12/31/83:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	5,983	768	6,751	21,120
Production	5,026	324	5,350	10,392

VALUE OF OIL AND GAS

Average 1984 wellhead price:	
Crude oil—*$/bbl.*	$26.73
Natural gas—*$/Mcf*	$3.32
Wellhead value of 1984 production: *thous. $*	
Crude oil	$3,321,710
Natural gas	$1,656,477
Total	$4,978,187
Cumulative crude oil wellhead value as of 12/31/84: *thous. $*	$31,841,410

Rank among principal mineral production and percentage of total mineral value:	
Crude oil—ranked 1st	47%
Natural gas—ranked 2nd	24%
State and local severance and production taxes paid in 1984—*thous. $*	$270,182
Number of employees in the oil and gas extraction industry in 1984	16,899

1984 INDUSTRY STATISTICS

Seismic crew months worked 306
Rotary drilling rigs active 115

Number of wells drilled:

	Exploratory	Development	Total
Oil	65	623	688
Gas	10	108	118
Dry	443	212	655
Service	—	33	33
Total	518	976	1,494

Total footage drilled:

(thous. ft.)	Exploratory	Development	Total
Oil	591.5	3,962.2	4,553.7
Gas	121.7	1,038.9	1,160.7
Dry	3,566.2	1,536.4	5,102.5
Service	—	129.7	129.7
Total	4,279.4	6,667.2	10,946.7

(Note: Totals may not add due to rounding.)

Number of new-field wildcats drilled 439
New-field wildcat footage-*thous. ft* 3,531.1

State-wide rank in:	Crude Oil	Natural Gas
Wells drilled	9th	13th
Production	6th	5th
Proved reserves	5th	6th

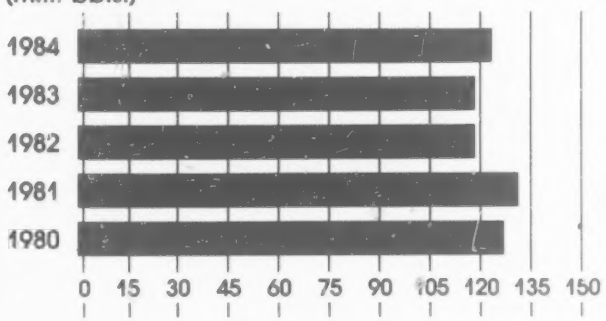
Number of producing wells as of *12/31/84:*
Crude oil 11,561
Natural gas 1,933
Total 13,494

Percentage of oil wells on artificial lift 93%

Average daily production: *(thous. b/d)*
Crude oil 340
NGL 83
Total 423
Natural gas marketed production—*MMcf* 498,939

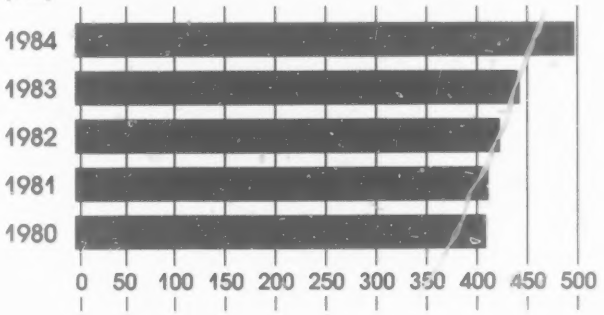
CRUDE OIL PRODUCTION

(mill. bbls.)



NATURAL GAS PRODUCTION

(Bcf)



1983 LATEST AVAILABLE DATA

Petroleum reserve position as of *12/31/83:*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	212	85	297
Production	111	30	141
Net annual change	101	62	163
Proved reserves	957	458	1,415

Natural gas reserve position as of *12/31/83:*

(Bcf)	Dissolved Associated	Non-Associated	Total Gas
New reserves added	−13	1,020	1,007
Production	88	346	434
Net annual change	−101	674	573
Proved reserves	959	9,769	10,728

Total estimated drilling cost $1,037,688,847
Cost per well $732,341
Cost per foot $107.55

Number of producing stripper wells—*12/31/83* 5,020
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 6,944
Percentage of crude oil produced by stripper wells 6%

Stripper crude oil reserves as of 12/31/83: *thous. bbls.*
Primary 100,200
Secondary 77,446
Total 177,646

STATE ENERGY CONTACT

Wyoming Oil and Gas Conservation Commission
777 West First Street
P.O. Box 2640
Casper, WY 82602
Ph. 307-234-7147

Statistical Tables & Charts

SEISMIC EXPLORATION ACTIVITY

(crew months)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	89	81	13	32	50	126	156	116	105	165
Alaska	101	54	24	16	30	37	82	129	58	79
Arizona	10	0	1	8	54	35	33	9	4	7
Arkansas	25	32	45	48	35	37	67	117	117	40
California	104	109	65	119	122	157	192	221	186	152
Colorado	37	53	42	61	58	87	56	141	176	208
Florida	45	19	17	18	17	21	42	20	37	10
Illinois	23	5	4	3	10	5	9	16	11	13
Indiana	1	1	0	0	0	6	0	1	3	13
Kansas	24	36	28	64	88	76	65	98	75	119
Kentucky	31	11	7	1	7	23	12	4	24	3
Louisiana	272	340	318	560	665	654	501	563	423	436
Maryland	0	3	1	0	1	4	6	2	2	1
Michigan	267	266	180	244	111	145	239	159	160	163
Mississippi	160	163	199	173	154	168	175	180	124	85
Montana	40	85	57	155	135	202	388	224	156	125
Nebraska	0	3	5	2	24	13	17	20	14	16
Nevada	16	12	38	45	51	47	41	61	39	54
New Mexico	74	79	53	89	85	120	136	156	116	114
New York	14	15	12	2	2	11	7	7	7	12
North Dakota	34	44	96	269	269	242	268	252	114	74
Ohio	2	2	3	2	1	3	8	3	15	12
Oklahoma	151	90	103	234	240	169	301	256	316	231
Oregon	0	0	9	4	0	9	27	27	13	33
Pennsylvania	32	25	21	41	33	39	49	37	27	3
South Dakota	8	0	1	63	3	2	3	9	14	4
Tennessee	9	5	8	9	26	30	34	24	17	19
Texas	907	914	722	1,095	1,213	1,438	1,745	1,583	1,353	1,199
Utah	65	65	71	163	106	158	122	127	111	121
Virginia	0	3	0	4	17	24	31	18	9	3
West Virginia	31	13	8	11	15	24	23	9	17	17
Wyoming	353	239	183	211	366	274	317	253	323	306
Other	10	20	27	43	43	37	29	64	61	88
Undesignated Land	114	56	502	95	91	190	240	194	147	226
Total Land	**3,049**	**2,843**	**2,863**	**3,884**	**4,122**	**4,613**	**5,421**	**5,098**	**4,374**	**4,134**
Marine	367	296	200	263	278	348	456	578	569	521
TOTAL U.S.	**3,416**	**3,140**	**3,063**	**4,148**	**4,400**	**4,962**	**5,877**	**5,676**	**4,943**	**4,655**

Source: Society of Exploration Geophysicists, Special Reports

Notes: Data include government and university activity, but exclude gravity, magnetic and other geophysical methods.

ACREAGE UNDER LEASE

(thous. acres)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	4,274	4,108	4,497	5,512	7,352	8,985	9,186	9,298	9,416	9,182
Alaska	8,157	7,616	5,671	5,131	3,744	3,528	4,131	5,464	10,574	11,240
Arizona	9,106	9,106	9,246	10,975	11,945	12,005	20,146	22,018	23,731	23,731
Arkansas	7,578	7,899	8,116	7,917	7,982	9,133	10,141	12,087	13,300	12,998
California	4,458	3,613	3,666	3,554	4,040	4,106	5,056	6,019	8,566	9,250
Colorado	36,175	36,350	35,148	35,200	34,747	31,809	30,639	31,577	35,532	35,531
Connecticut	0	0	0	0	0	0	0	0	0	83
Delaware	0	0	0	0	0	0	0	0	0	136
Florida	3,529	2,787	2,654	2,848	2,805	3,005	3,715	3,755	5,130	2,637
Georgia	158	67	17	47	92	1,450	1,950	2,620	2,960	2,800
Idaho	†	†	†	†	1,103	1,079	1,470	1,208	871	913
Illinois	3,835	4,391	3,891	3,651	3,905	4,413	4,673	4,468	4,629	4,735
Indiana	3,212	3,314	3,517	3,570	3,725	8,779	8,833	8,848	8,963	8,963
Iowa	0	0	0	0	0	0	0	0	300	5,000
Kansas	7,178	7,797	10,955	12,001	12,984	13,222	13,795	16,497	18,672	19,750
Kentucky	3,500	3,560	3,714	3,925	4,083	4,950	5,225	5,500	5,525	6,350
Louisiana	9,189	9,476	14,786	17,620	14,767	15,962	16,100	13,550	13,672	14,500
Maryland	162	204	204	286	364	449	494	435	370	314
Massachusetts	0	0	0	0	0	0	0	9	9	12
Michigan	11,656	11,878	12,293	12,540	10,785	12,550	14,074	14,324	14,577	14,756
Minnesota	0	0	0	0	0	0	0	80	80	570
Mississippi	7,396	7,311	7,118	7,651	7,951	7,951	11,927	11,944	11,479	10,402
Missouri	401	302	402	452	502	504	612	633	713	713
Montana	32,317	32,682	32,430	33,953	34,110	30,060	38,170	42,023	44,050	44,050
Nebraska	10,177	10,180	10,441	10,386	10,548	12,584	12,570	14,416	13,411	13,411
Nevada	6,501	6,501	9,822	12,753	15,719	17,856	23,554	31,646	29,853	29,853
New Hampshire	0	0	0	0	0	0	106	302	200	144
New Jersey	0	0	0	0	0	0	0	0	0	132
New Mexico	28,775	29,035	29,514	29,350	29,350	30,130	30,020	31,413	42,525	42,621
New York	4,190	4,700	4,965	5,070	4,975	5,500	5,710	5,850	5,900	5,600
North Carolina	2,200	2,200	327	324	379	94	552	375	375	457
North Dakota	21,612	21,752	22,355	22,653	22,752	22,299	22,920	22,256	23,300	23,300
Ohio	15,126	15,200	15,192	15,188	15,429	16,527	16,520	16,448	16,443	15,209
Oklahoma	11,170	11,050	13,056	14,960	16,083	16,887	17,402	17,692	18,990	19,200
Oregon	†	†	†	†	4,501	4,001	4,001	9,002	7,002	5,025
Pennsylvania	15,426	15,445	15,917	16,133	16,632	17,010	17,140	17,540	17,672	17,997
South Carolina	0	0	0	0	0	100	200	203	583	1,760
South Dakota	6,707	6,732	6,568	6,442	6,821	7,458	8,120	7,027	7,325	8,120
Tennessee	2,252	2,079	1,391	2,043	2,988	2,972	4,327	4,929	4,431	3,827
Texas	44,145	45,341	47,819	49,129	51,670	60,075	64,350	64,723	70,300	68,374
Utah	26,160	26,265	28,675	28,130	28,891	29,519	30,900	32,014	38,230	38,230
Vermont	0	0	0	0	0	0	270	360	412	17
Virginia	938	872	1,020	1,206	2,024	3,053	3,457	3,159	3,376	3,236
West Virginia	11,830	11,838	12,158	12,972	13,542	13,934	14,134	13,447	13,757	13,408
Wisconsin	0	0	0	0	0	0	0	0	20	110
Wyoming	38,790	38,930	38,998	37,620	39,597	38,765	36,850	34,227	38,999	38,999
TOTAL U.S.	**398,280**	**400,581**	**416,543**	**431,192**	**448,887**	**472,704**	**513,440**	**539,386**	**586,223**	**587,646**

Source: Various state and industry contacts
† Not available

Note: Figures are estimates of both productive and non-productive acreage as of December 31st.

ROTARY RIGS ACTIVE

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	14	17	14	13	13	11	17	15	16	15
Alaska	14	14	15	16	14	14	23	22	14	14
Arizona	†	†	†	†	0	1	1	1	†	0
Arkansas	14	15	15	14	10	27	34	27	26	26
California	80	89	90	94	96	120	155	129	106	107
Colorado	43	38	45	41	40	61	82	60	52	54
Florida	9	5	6	6	5	4	8	5	4	4
Illinois	19	22	16	28	13	25	45	76	61	41
Indiana	2	2	3	4	†	†	1	7	6	7
Kansas	57	51	67	76	66	120	196	157	125	128
Kentucky	1	1	2	3	†	2	5	10	8	8
Louisiana	227	231	292	338	347	427	456	343	282	310
Michigan	28	24	24	24	25	31	37	31	29	34
Mississippi	25	32	42	45	40	58	72	42	33	32
Montana	27	28	27	30	33	49	81	36	24	36
Nebraska	9	8	9	10	9	14	15	9	9	9
Nevada	†	2	3	3	4	5	5	3	1	5
New Mexico	71	54	70	76	88	118	135	103	65	78
New York	8	9	7	7	9	7	12	15	10	9
North Dakota	17	19	24	39	56	83	119	69	42	51
Ohio	21	26	33	46	46	74	98	57	40	51
Oklahoma	177	187	233	258	247	397	698	622	285	319
Oregon	†	†	†	†	1	†	2	†	†	1
Pennsylvania	10	10	15	25	29	29	39	33	22	36
South Dakota	1	2	3	2	1	2	2	2	1	2
Texas	637	653	779	855	770	987	1,317	990	797	850
Utah	26	19	30	32	29	42	69	40	37	45
West Virginia	10	12	17	27	30	38	45	49	34	38
Wyoming	107	86	118	136	147	155	191	143	96	115
Other	6	2	2	11	9	8	10	9	7	3
TOTAL U.S.	**1,660**	**1,658**	**2,001**	**2,259**	**2,177**	**2,909**	**3,970**	**3,105**	**2,232**	**2,428**

Source: Hughes Tool Company
† Less than one

Notes: Includes offshore rigs.
Data represent annual averages.

NEW-FIELD WILDCAT WELLS DRILLED

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	69	50	44	57	92	73	71	79	84	106
Alaska	13	6	14	6	12	16	14	7	10	2
Arizona	1	2	2	0	2	6	8	6	0	2
Arkansas	77	80	74	95	99	109	146	120	145	119
California	64	96	90	108	113	140	132	92	84	90
Colorado	342	317	286	309	294	353	509	361	289	311
Florida	31	9	13	15	10	8	10	12	13	8
Illinois	108	70	52	78	56	107	167	251	338	167
Indiana	68	86	67	104	63	104	95	113	123	95
Kansas	292	300	310	311	368	386	480	362	337	184
Kentucky	152	112	75	73	86	89	99	174	132	83
Louisiana	522	429	484	567	531	673	800	659	550	659
Michigan	280	291	294	266	247	313	402	449	302	512
Mississippi	225	230	260	237	232	280	355	268	251	234
Missouri	19	7	8	6	9	8	28	11	12	10
Montana	264	266	197	245	255	277	400	204	136	173
Nebraska	185	165	207	242	243	237	269	191	186	131
Nevada	5	8	8	13	11	20	25	10	5	24
New Mexico	147	125	122	149	157	214	248	204	113	100
New York	21	29	35	32	25	30	25	5	8	8
North Dakota	82	82	78	127	113	192	332	246	127	162
Ohio	14	8	8	6	21	4	20	33	27	12
Oklahoma	201	216	211	197	176	196	267	260	156	142
Oregon	0	0	2	0	10	24	11	2	0	1
Pennsylvania	23	15	36	17	19	22	16	21	3	8
South Dakota	23	27	16	21	25	29	46	30	32	13
Tennessee	100	86	88	91	116	222	256	311	236	51
Texas	2,403	2,299	2,571	2,860	2,588	2,698	3,154	2,284	1,665	1,456
Utah	59	35	88	65	65	76	136	108	98	81
Virginia	2	1	4	2	4	2	6	13	13	1
West Virginia	23	26	21	16	16	22	39	26	4	1
Wyoming	385	348	371	393	323	369	551	382	380	439
Other	5	8	2	8	3	9	7	11	6	7
Federal Waters	33	27	24	15	39	24	27	34	34	67
TOTAL U.S.	**6,238**	**5,856**	**6,162**	**6,731**	**6,423**	**7,332**	**9,151**	**7,339**	**5,899**	**5,459**

Source: American Petroleum Institute

Notes: Data include oil wells, gas wells and dry holes. Figures have been revised to new well-completion basis.

EXPLORATORY WELLS DRILLED

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	76	54	47	60	101	77	75	79	84	106
Alaska	24	6	21	12	14	16	20	10	3	2
Arizona	1	2	2	0	2	6	8	7	10	2
Arkansas	77	80	82	95	105	111	154	128	152	128
California	213	257	275	359	395	443	538	466	192	173
Colorado	405	389	392	449	456	553	849	645	499	487
Florida	34	9	14	15	11	8	10	12	13	8
Illinois	253	226	238	277	284	487	736	694	708	481
Indiana	156	196	276	268	183	327	347	451	453	401
Kansas	909	893	1,043	1,181	1,022	1,237	1,848	1,838	1,701	2,207
Kentucky	341	425	368	353	423	619	870	1,104	1,341	694
Louisiana	722	607	640	782	665	808	971	801	591	752
Michigan	282	294	297	267	255	316	402	449	302	513
Mississippi	260	265	272	241	242	310	357	268	251	234
Missouri	19	9	8	6	15	22	78	79	40	21
Montana	355	362	273	324	349	382	521	275	175	222
Nebraska	206	193	235	265	265	252	279	197	188	134
Nevada	5	8	12	14	11	20	28	11	7	25
New Mexico	162	162	180	205	212	273	358	313	187	201
New York	35	40	49	45	60	59	79	44	41	17
North Dakota	105	122	111	162	175	256	461	371	210	252
Ohio	157	133	81	77	114	66	151	173	112	55
Oklahoma	411	452	490	495	479	554	733	703	554	471
Oregon	0	0	2	0	17	32	20	8	0	1
Pennsylvania	88	67	116	94	105	255	342	164	86	49
South Dakota	24	29	20	21	32	33	47	33	33	15
Tennessee	169	153	177	149	163	293	333	397	257	51
Texas	3,291	3,276	3,726	4,085	3,910	4,354	5,688	5,057	4,473	4,433
Utah	64	41	103	80	89	112	208	149	129	90
Virginia	8	3	9	5	4	2	6	26	14	1
West Virginia	95	114	115	151	124	119	170	155	57	18
Wyoming	473	415	440	470	411	435	708	531	460	518
Other	6	8	2	8	3	9	8	11	6	7
Federal Waters	33	27	24	15	39	24	27	34	36	70
TOTAL U.S.	**9,459**	**9,317**	**10,140**	**11,030**	**10,735**	**12,870**	**17,430**	**15,683**	**13,365**	**12,839**

Source: American Petroleum Institute

Notes: Data include oil wells, gas wells and dry holes. Figures have been revised to new well-completion basis.

DEVELOPMENT WELLS DRILLED

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	53	62	88	101	118	119	142	110	119	158
Alaska	41	54	48	55	71	108	146	200	157	146
Arizona	0	0	2	8	1	0	5	1	1	0
Arkansas	245	348	399	347	393	496	723	676	705	705
California	2,028	2,161	1,938	1,639	1,592	2,072	2,593	2,103	2,078	3,018
Colorado	762	762	791	701	607	857	1,122	1,160	950	1,085
Florida	17	16	15	11	20	11	15	9	7	5
Illinois	764	1,058	851	855	967	1,828	2,550	2,415	2,133	1,731
Indiana	217	291	337	401	302	406	460	571	534	516
Kansas	2,444	2,646	2,899	3,312	3,338	4,923	6,542	6,492	5,315	3,140
Kentucky	631	742	688	657	709	1,463	2,030	2,556	2,602	2,065
Louisiana	2,322	2,719	2,753	3,001	3,358	4,223	4,362	4,210	4,294	5,622
Michigan	249	213	243	257	264	345	362	435	454	522
Mississippi	183	233	255	248	281	360	431	315	298	283
Missouri	6	13	4	26	56	143	189	104	133	33
Montana	503	409	400	453	471	507	744	536	317	501
Nebraska	133	119	186	183	184	260	327	212	181	155
Nevada	0	0	6	7	0	1	2	0	1	2
New Mexico	974	859	1,210	1,375	1,396	1,793	2,099	1,729	1,296	1,360
New York	538	419	345	330	437	436	492	622	351	392
North Dakota	100	122	131	178	265	360	417	325	278	382
Ohio	1,400	2,071	2,685	3,254	3,532	5,023	5,926	4,540	4,049	2,204
Oklahoma	3,404	4,104	4,821	5,641	6,477	9,568	12,357	10,443	8,076	7,874
Oregon	0	0	0	0	4	9	0	0	0	0
Pennsylvania	1,116	1,212	1,433	2,013	2,068	2,833	3,517	2,985	2,063	1,110
South Dakota	3	6	23	29	17	41	43	20	18	13
Tennessee	63	46	110	115	185	257	295	194	149	67
Texas	9,588	9,335	10,898	11,260	11,414	15,172	20,291	19,636	18,673	19,342
Utah	129	87	184	186	187	177	347	309	278	334
Virginia	28	8	16	26	21	25	26	71	21	62
West Virginia	661	875	1,112	1,352	1,445	1,752	1,948	1,889	1,484	1,464
Wyoming	822	630	827	996	963	1,037	1,289	1,115	975	943
Other	0	2	0	0	0	0	0	0	0	0
Federal Waters	1	1	17	14	12	11	12	26	42	25
TOTAL U.S.	**29,425**	**31,623**	**35,715**	**39,031**	**41,155**	**56,616**	**71,804**	**66,009**	**58,032**	**55,259**

Source: American Petroleum Institute

Notes: Data include oil wells, gas wells and dry holes. Figures have been revised to new well-completion basis.

TOTAL WELLS DRILLED

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	130	116	136	161	219	196	222	191	203	264
Alaska	69	77	73	76	96	125	172	227	163	158
Arizona	2	2	4	8	4	6	14	14	11	2
Arkansas	330	438	491	450	504	612	889	821	879	852
California	2,694	2,808	2,553	2,485	2,340	3,039	3,838	3,090	2,640	3,393
Colorado	1,172	1,152	1,212	1,156	1,069	1,414	1,977	1,808	1,451	1,573
Florida	52	26	32	29	32	21	25	21	20	13
Illinois	1,129	1,484	1,143	1,202	1,327	2,482	3,436	3,233	2,963	2,253
Indiana	400	509	621	685	494	751	828	1,051	1,022	979
Kansas	3,728	3,705	4,060	4,576	4,436	6,266	8,551	8,562	7,219	5,448
Kentucky	1,013	1,189	1,095	1,077	1,195	2,171	3,062	3,762	4,065	2,828
Louisiana	3,105	3,373	3,439	3,817	4,063	5,147	5,503	5,068	4,971	6,481
Michigan	536	530	545	539	538	676	787	900	769	1,052
Mississippi	454	504	539	496	534	680	788	583	549	517
Missouri	95	44	53	49	85	266	397	305	240	105
Montana	858	773	679	778	822	902	1,289	815	495	725
Nebraska	347	312	425	451	450	514	608	414	370	300
Nevada	5	8	18	22	12	21	34	13	8	27
New Mexico	1,173	1,042	1,407	1,625	1,656	2,126	2,527	2,095	1,517	1,601
New York	610	519	485	427	513	507	578	667	393	409
North Dakota	205	245	242	341	440	619	879	696	488	634
Ohio	1,558	2,205	2,768	3,333	3,657	5,093	6,082	4,729	4,185	2,270
Oklahoma	3,960	4,741	5,344	6,164	6,980	10,158	13,125	11,168	8,664	8,394
Oregon	0	0	2	0	21	41	20	8	0	1
Pennsylvania	1,270	1,316	1,569	2,182	2,295	3,261	3,962	3,215	2,195	1,166
South Dakota	27	36	43	50	49	75	90	53	51	28
Tennessee	232	199	287	264	348	550	628	591	406	118
Texas	13,276	12,982	15,114	15,863	15,810	20,038	26,442	25,346	23,797	24,446
Utah	196	131	305	268	284	291	555	478	407	424
Virginia	36	11	25	31	25	27	32	97	35	63
West Virginia	772	1,035	1,267	1,537	1,612	1,924	2,170	2,081	1,564	1,498
Wyoming	1,327	1,059	1,281	1,489	1,392	1,518	2,043	1,704	1,471	1,494
Other	8	14	5	11	9	10	8	14	10	8
Federal Waters	35	29	46	29	51	35	39	60	78	95
TOTAL U.S.	**40,804**	**42,614**	**47,308**	**51,671**	**53,362**	**71,562**	**91,600**	**83,880**	**73,299**	**69,619**

Source: American Petroleum Institute

Notes: Data include oil, gas and service wells, dry holes, stratigraphic and core tests.
Figures have been revised to new well-completion basis.

COST OF DRILLING AND EQUIPPING WELLS—1983

	No. of Wells Drilled	Footage Drilled (ft.)	Total Cost ($)	Depth per Well (ft.)	Cost per Well ($)	Cost per Foot ($)
Alabama	204	1,156,931	147,677,845	5,671	723,911	127.65
Alaska—Onshore	180	1,756,554	584,614,906	9,759	3,247,861	332.82
Offshore	4	50,212	73,395,364	12,553	18,348,842	1,461.71
Total	184	1,806,766	658,010,270	9,819	3,576,143	364.19
Arkansas	855	4,008,339	216,518,686	4,688	253,238	54.02
California—North	203	1,390,386	97,116,596	6,849	478,407	69.85
Central Coastal	177	765,908	104,124,901	4,327	588,276	135.95
East Central	1,655	3,739,620	362,114,118	2,260	218,800	96.83
South	127	500,321	69,024,696	3,940	543,502	137.96
Offshore	100	717,990	429,078,793	7,180	4,290,788	597.61
Total	2,262	7,114,225	1,061,459,104	3,145	469,257	149.20
Colorado	1,400	8,507,765	421,869,231	6,077	301,335	49.59
Florida	18	237,630	47,769,411	13,202	2,653,856	201.02
Illinois	2,696	6,396,809	203,056,111	2,373	75,318	31.74
Indiana	978	1,853,715	43,048,416	1,895	44,017	23.22
Kansas	6,714	20,954,875	573,580,382	3,121	85,431	27.37
Kentucky	3,037	4,242,028	130,734,825	1,397	43,047	30.82
Louisiana—North	2,812	9,502,902	436,520,888	3,379	155,235	45.94
South	1,190	12,512,139	1,759,049,621	10,514	1,478,193	140.59
Offshore	872	9,045,343	2,790,914,178	10,373	3,200,590	308.55
Total	4,874	31,060,384	4,986,484,687	6,373	1,023,079	160.54
Michigan	767	3,464,092	194,724,437	4,516	253,878	56.21
Mississippi	551	4,554,715	368,342,936	8,266	668,499	80.87
Montana	486	2,263,805	169,748,176	4,658	349,276	74.98
Nebraska	352	1,724,719	45,810,628	4,900	130,144	26.56
New Mexico—East	962	5,879,277	490,400,976	6,112	509,772	83.41
West	516	2,838,956	195,477,306	5,502	378,832	68.86
Total	1,478	8,718,233	685,878,282	5,899	464,058	78.67
North Dakota	493	4,465,041	377,259,445	9,057	765,232	84.49
Oklahoma	8,256	40,688,336	3,696,986,428	4,928	447,794	90.86
Texas—District 1	2,359	6,308,090	306,482,856	2,674	129,921	48.59
2	675	4,460,894	338,908,955	6,609	502,087	75.97
3	1,838	13,831,990	1,120,119,445	7,526	609,423	80.98
4	1,238	9,565,006	991,274,825	7,726	800,707	103.64
5	562	2,465,061	255,306,341	4,386	454,282	103.57
6	1,077	7,537,403	650,769,675	6,999	604,243	86.34
7B	4,142	12,717,758	432,257,287	3,070	104,360	33.99
7C	1,735	9,418,302	453,585,415	5,428	261,433	48.16
8	2,524	14,072,566	1,038,271,484	5,576	411,360	73.78
8A	1,658	9,964,094	503,996,993	6,010	303,979	50.58
9	3,599	11,553,565	396,875,228	3,210	110,274	34.35
10	1,034	5,730,979	413,882,125	5,543	400,273	72.22
Offshore	207	2,140,613	958,795,271	10,341	4,631,861	447.91
Total	22,648	109,766,321	7,860,525,900	4,847	347,074	71.61
Utah	390	2,381,325	503,977,690	6,106	1,292,251	211.64
Wyoming	1,417	9,648,188	1,037,688,847	6,809	732,341	107.55
Appalachian*	6,880	24,429,647	876,198,832	3,551	127,354	35.87
Federal Waters—Alaska	0	—	—	—	—	—
Atlantic Coast	2	29,000	59,133,552	14,500	29,566,776	2,039.09
Gulf North	65	712,257	418,215,058	10,958	6,434,078	587.17
Pacific	20	136,491	231,191,745	6,825	11,559,587	1,693.82
Total	87	877,748	708,540,355	10,089	8,144,142	807.23
Other U.S.	509	904,195	88,651,689	1,776	174,168	98.04
Total Offshore	**1,270**	**12,831,906**	**4,960,723,961**	**10,104**	**3,906,082**	**386.59**
Total Onshore	**66,266**	**288,393,926**	**20,143,818,652**	**4,352**	**303,984**	**69.85**
TOTAL U.S.	**67,536**	**301,225,832**	**25,104,542,613**	**4,460**	**371,721**	**83.34**

Source: Joint Association Survey
*Includes New York, Ohio, Pennsylvania and West Virginia

Notes: All figures are estimates.
The last 3 columns represent averages.
1984 data unavailable.

PRODUCING CRUDE OIL WELLS

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	566	633	637	630	514	669	692	719	741	759
Alaska	200	190	291	366	400	642	700	760	672	640
Arizona	28	27	28	31	35	32	35	36	34	31
Arkansas	7,072	7,212	7,503	7,553	7,698	8,104	8,249	8,629	8,370	9,490
California	40,939	44,783	43,454	44,999	44,674	45,591	47,362	47,231	47,197	48,541
Colorado	2,340	2,376	3,045	3,227	3,402	3,490	2,898	3,113	4,591	5,360
Florida	144	144	144	115	115	120	117	123	137	138
Illinois	23,360	23,509	23,828	23,869	24,067	24,745	26,100	27,600	28,967	28,920
Indiana	4,380	4,798	4,891	5,076	5,296	5,452	5,715	6,047	6,465	6,792
Kansas	41,945	42,250	42,450	43,258	47,379	47,457	42,402	46,189	49,348	49,198
Kentucky	14,231	13,970	14,046	14,149	14,097	14,517	14,585	15,109	15,562	19,980
Louisiana	27,734	26,400	23,881	24,500	24,767	26,014	25,320	22,380	23,376	24,508
Michigan	3,655	3,770	3,903	3,890	3,890	4,109	4,417	4,536	4,913	4,881
Mississippi	2,237	2,212	2,260	2,254	2,556	2,631	3,154	2,640	2,727	2,562
Missouri	157	145	161	161	188	258	421	499	552	557
Montana	3,150	3,310	3,354	3,275	3,573	3,628	3,968	4,311	4,675	4,716
Nebraska	1,127	1,292	1,369	1,455	1,535	1,679	1,870	2,006	2,100	2,095
New Mexico	13,650	13,846	14,265	14,398	15,045	15,746	16,289	16,526	17,409	18,146
New York	4,975	5,000	4,800	4,900	4,800	5,000	5,300	5,320	5,432	4,678
North Dakota	1,484	1,571	1,638	1,732	1,908	2,290	2,570	2,870	3,734	3,404
Ohio	15,165	15,453	17,363	18,097	19,177	20,451	22,441	24,752	26,287	26,878
Oklahoma	71,657	72,388	73,653	74,870	76,505	78,463	82,639	91,745	95,868	99,600
Pennsylvania	32,250	32,065	28,805	28,400	27,768	27,925	26,138	25,285	24,657	20,739
South Dakota	†	†	†	†	88	118	120	130	140	138
Tennessee	149	197	272	279	338	441	489	650	693	775
Texas	171,046	160,675	163,815	165,817	168,123	174,511	180,627	187,626	195,595	203,664
Utah	1,056	1,188	863	1,291	1,346	1,478	1,543	1,583	1,634	1,799
West Virginia	13,750	13,800	13,900	14,100	14,225	14,425	14,700	14,900	15,300	15,475
Wyoming	9,450	10,027	10,103	10,011	10,059	10,227	11,574	11,792	11,349	11,561
Other	37	18	87	106	28	31	39	50	55	68
Federal Waters	†	†	3,531	3,429	3,259	3,266	4,535	4,985	4,710	4,104
TOTAL U.S.	**507,940**	**503,268**	**508,340**	**516,238**	**526,855**	**543,510**	**557,009**	**580,142**	**603,290**	**620,197**

Source: *World Oil*
† Not available

Notes: Data include wells on artificial lift and flowing.
Figures as of December 31st each year.

PRODUCING NATURAL GAS WELLS

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	45	66	133	170	264	262	309	461	540	664
Alaska	57	36	50	65	56	54	120	123	103	78
Arkansas	958	1,042	1,170	1,143	1,200	1,188	1,337	1,679	1,850	2,492
California	1,157	1,123	1,050	854	838	905	1,154	1,050	1,082	1,168
Colorado	1,380	1,500	1,876	2,169	2,444	2,650	3,988	3,667	4,072	3,663
Illinois	40	41	40	30	51	58	70	60	67	157
Indiana	478	541	563	596	631	655	698	720	736	1,194
Kansas	9,000	9,115	9,410	9,450	10,351	10,544	11,014	11,254	11,494	11,503
Kentucky	7,311	7,505	7,649	7,776	7,765	7,992	8,033	8,084	8,234	9,013
Louisiana	11,359	11,370	9,758	10,135	10,848	11,486	12,763	13,503	13,894	14,238
Michigan	279	304	342	376	376	423	667	667	539	510
Mississippi	248	257	285	402	431	458	570	520	525	671
Montana	1,232	1,950	1,490	1,377	1,881	2,150	2,142	2,069	2,043	1,958
Nebraska	25	16	16	22	23	22	26	22	24	21
New Mexico	10,272	11,479	11,200	12,027	12,922	13,843	14,968	16,025	16,214	16,401
New York	1,100	1,400	1,700	1,900	2,200	2,200	2,500	2,650	2,969	3,800
North Dakota	18	18	22	23	22	52	51	66	123	90
Ohio	10,012	10,901	12,105	13,643	15,271	16,845	18,619	21,070	24,621	27,846
Oklahoma	9,707	10,293	11,512	12,525	14,062	15,245	16,994	20,742	22,135	23,647
Pennsylvania	17,300	17,500	17,391	17,900	18,900	19,700	20,526	21,500	23,000	24,000
Tennessee	9	7	34	60	143	200	210	360	415	726
Texas	25,977	27,762	30,779	33,324	36,240	37,819	39,575	42,295	43,395	44,834
Utah	271	71	535	171	182	200	226	282	322	659
Virginia	185	179	204	223	268	274	274	290	292	499
West Virginia	21,700	22,100	22,600	23,575	24,425	25,600	26,925	28,350	29,675	30,700
Wyoming	950	1,000	995	888	1,007	1,504	1,888	1,889	1,919	1,933
Other	16	18	15	13	21	31	55	65	71	60
Federal Waters	†	†	2,529	2,818	2,866	2,853	3,907	4,200	4,000	3,552
TOTAL U.S.	**131,086**	**137,594**	**145,453**	**153,655**	**165,888**	**175,213**	**189,609**	**203,663**	**214,354**	**226,077**

Source: *World Oil*
† Not available

Notes: Data include gas distillate wells.
Figures as of December 31st each year.

CRUDE OIL PRODUCTION

(thous. bbls.)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	13,477	14,706	18,252	19,829	19,161	22,153	20,680	20,014	18,746	19,804
Alaska	69,834	63,398	169,201	448,620	511,335	591,646	587,337	618,910	625,527	630,401
Arizona	635	519	427	418	472	406	357	335	237	215
Arkansas	16,133	18,097	20,202	20,329	18,869	18,210	18,352	18,849	18,849	18,730
California	322,199	326,021	349,609	347,181	352,268	356,923	384,958	401,572	404,688	412,020
Colorado	38,089	38,992	39,460	36,797	32,324	29,802	30,303	30,545	29,050	28,845
Florida	41,877	44,460	46,641	47,536	47,168	42,886	34,773	25,626	19,476	14,462
Illinois	26,067	26,272	25,608	23,362	21,793	22,702	24,090	27,710	29,200	28,868
Indiana	4,632	4,630	5,314	4,689	4,715	4,978	4,721	5,563	5,321	5,526
Kansas	59,106	58,714	57,496	56,586	56,995	60,151	65,810	70,525	71,594	75,729
Kentucky	7,556	7,483	6,581	5,724	5,514	5,946	6,548	7,349	7,886	7,777
Louisiana	650,840	606,501	562,905	532,740	489,687	469,141	449,315	458,395	479,569	515,268
Michigan	24,420	30,421	32,965	34,667	34,862	33,808	32,665	31,462	31,736	30,554
Mississippi	46,614	46,072	43,022	42,024	37,327	35,945	34,204	33,047	31,455	32,776
Missouri	57	61	60	54	91	130	226	202	269	285
Montana	32,844	32,814	32,680	30,467	29,957	29,584	30,813	30,921	29,225	29,761
Nebraska	6,120	6,182	5,968	5,862	6,068	6,240	6,671	6,872	6,380	6,452
Nevada	115	143	661	1,156	1,235	880	700	613	810	1,907
New Mexico	95,063	92,130	87,223	83,365	79,649	75,324	71,568	71,024	75,169	79,336
New York	875	857	824	852	855	824	841	834	831	840
North Dakota	20,452	21,725	23,273	24,812	30,914	40,337	45,424	47,271	50,690	52,652
Ohio	9,578	9,994	10,359	11,154	11,953	12,928	13,551	14,571	14,971	15,271
Oklahoma	163,123	161,426	156,382	150,456	143,642	150,140	154,056	158,621	158,604	168,385
Pennsylvania	3,264	3,019	2,715	2,887	2,874	2,651	3,729	4,282	4,282	4,284
South Dakota	472	447	632	869	846	765	973	1,158	1,172	1,340
Tennessee	682	598	820	593	614	743	918	1,132	1,056	920
Texas	1,221,929	1,189,523	1,137,880	1,074,050	1,018,094	977,436	945,132	925,296	902,676	904,774
Utah	42,301	34,304	33,113	31,368	27,728	24,978	25,860	22,440	29,534	34,689
Virginia	3	3	2	2	4	10	13	49	65	32
West Virginia	2,479	2,519	2,518	2,382	2,406	2,336	3,473	3,227	3,628	3,524
Wyoming	135,943	134,149	136,472	137,385	131,890	126,362	130,563	118,300	118,303	124,269
TOTAL U.S.	**3,056,779**	**2,976,180**	**3,009,265**	**3,178,216**	**3,121,310**	**3,146,365**	**3,128,624**	**3,156,715**	**3,170,999**	**3,249,696**
DAILY AVERAGE	**8,374**	**8,132**	**8,245**	**8,707**	**8,552**	**8,597**	**8,572**	**8,649**	**8,688**	**8,879**

Source: Energy Information Administration, Petroleum Supply Annuals

Note: Data include lease condensate.

NATURAL GAS PRODUCTION

(MMcf)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	37,814	41,427	57,227	85,599	85,815	65,294	79,244	75,003	90,801	87,052
Alaska	160,270	166,072	187,889	203,088	220,754	230,588	242,564	264,364	276,691	279,739
Arizona	208	262	240	286	247	214	187	99	132	150*
Arkansas	116,237	109,533	104,096	106,792	109,452	111,808	92,986	124,611	127,561	163,900
California	318,308	354,334	311,462	311,084	248,206	309,783	380,730	383,977	415,324	465,914
Colorado	171,629	183,972	188,792	183,693	191,239	188,001	195,706	209,892	163,545	179,985
Florida	44,383	43,165	48,171	51,595	50,190	40,638	32,470	22,515	21,056	12,981
Illinois	1,440	1,556	1,003	1,159	1,585	1,574	1,295	1,162	1,030	926*
Indiana	346	192	183	163	350	463	330	233	135	110*
Kansas	843,625	829,170	781,289	854,484	797,762	735,035	640,114	429,597	434,736	466,228
Kentucky	60,511	66,137	60,902	70,044	59,520	57,180	61,312	51,924	46,720	39,150*
Louisiana	7,090,645	7,006,596	7,215,006	7,476,497	7,266,217	6,639,416	6,780,184	6,171,627	5,332,113	5,823,596
Maryland	93	75	82	88	28	68	56	36	31	30*
Michigan	102,113	119,262	129,954	148,047	159,731	158,302	152,593	153,051	138,910	136,310
Mississippi	74,345	70,762	82,995	106,579	144,077	175,061	181,238	167,231	151,204	158,123
Missouri	30	29	20	0	0	0	0	0	0	0
Montana	40,734	42,563	46,819	46,522	53,888	51,867	56,565	56,517	51,967	51,962
Nebraska	2,565	2,511	2,789	2,882	3,208	2,550	2,519	2,280	2,091	1,985*
New Mexico	1,217,430	1,230,976	1,202,973	1,174,198	1,181,363	1,149,781	1,134,078	991,178	895,279	951,574
New York	7,628	9,235	10,682	13,900	15,500	15,643	16,074	15,877	17,836	18,960*
North Dakota	24,786	31,470	29,173	30,499	18,468	42,346	42,573	53,818	69,319	77,339
Ohio	84,960	88,891	99,327	114,098	123,431	138,856	141,134	138,391	151,300	158,015*
Oklahoma	1,605,410	1,726,513	1,769,519	1,773,582	1,835,366	1,891,824	2,019,199	1,934,412	1,730,061	2,079,673
Oregon	0	0	0	0	2	5	5	3	3	3*
Pennsylvania	84,676	89,386	91,717	97,763	96,313	97,439	122,454	121,111	118,372	116,210*
South Dakota	0	0	0	0	914	1,193	1,155	2,331	1,846	1,755*
Tennessee	27	47	263	468	941	1,241	1,719	2,976	3,950	4,320*
Texas	7,485,764	7,191,859	7,051,027	6,548,184	7,174,623	7,115,889	6,910,021	6,468,817	5,938,561	6,130,232
Utah	55,354	57,416	60,696	58,416	58,605	87,766	91,191	94,255	63,158	52,300
Virginia	6,723	6,937	8,220	8,492	8,544	7,812	8,903	6,880	4,346	3,825*
West Virginia	154,484	153,322	152,767	148,564	150,505	156,551	161,251	150,850	130,078	138,121
Wyoming	316,123	328,768	330,180	357,267	414,416	409,541	410,499	424,657	443,988	498,939
TOTAL U.S.	**20,108,661**	**19,952,438**	**20,025,463**	**19,974,033**	**20,471,260**	**19,883,729**	**19,960,349**	**18,519,675**	**16,822,144**	**18,099,407***

Source: Energy Information Administration, Natural Gas Annuals

Note: Data represent marketed production.

* Estimated

STRIPPER WELL CRUDE OIL PRODUCTION

(thous. bbls.)	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Alabama	87	117	162	139	121	144	125	122	158	173
Arizona	4	5	6	7	5	5	16	23	24	26
Arkansas	6,748	5,044	5,199	6,172	7,754	7,231	5,690	5,465	5,132	7,118
California	77,497	60,574	52,246	51,410	49,558	45,521	44,110	54,804	55,419	55,993
Colorado	1,830	1,953	2,013	2,017	2,018	1,955	1,989	2,159	2,204	3,630
Illinois	26,024	25,215	24,936	23,614	21,160	20,325	20,167	22,238	23,989	25,889
Indiana	4,920	4,032	4,471	5,255	4,560	4,557	4,019	4,781	4,568	4,336
Kansas	44,615	43,707	44,433	44,190	44,461	43,948	44,545	45,010	47,629	48,267
Kentucky	6,464	6,183	6,173	5,421	4,713	4,549	4,573	4,479	5,144	5,522
Louisiana	7,502	7,574	8,176	7,740	7,916	7,681	7,657	9,012	9,172	9,000
Michigan	4,883	4,760	4,602	6,233	5,602	5,621	4,717	2,449	2,820	3,145
Mississippi	572	649	1,215	1,349	1,234	1,601	1,890	3,805	2,237	1,286
Missouri	56	57	60	60	53	54	127	226	53	271
Montana	2,024	3,579	2,947	3,255	2,805	2,830	2,710	2,748	2,881	3,104
Nebraska	1,379	1,545	1,758	2,012	2,025	1,866	2,237	2,510	2,879	3,418
Nevada	0	0	0	0	0	0	9	0	0	0
New Mexico	10,835	11,083	11,141	11,547	11,831	12,068	12,924	13,463	14,207	14,722
New York	896	875	857	813	852	855	824	849	719	774
North Dakota	934	930	1,075	1,146	1,197	1,250	1,225	1,386	1,493	1,537
Ohio	6,362	6,705	6,996	7,251	7,808	8,367	9,050	9,486	10,199	10,480
Oklahoma	73,695	72,531	73,459	74,400	74,175	76,001	79,945	83,249	94,237	94,430
Pennsylvania	3,399	3,199	2,950	2,659	2,565	2,817	2,651	3,606	3,718	3,951
South Dakota	21	18	21	15	17	22	25	39	55	44
Tennessee	108	126	140	194	270	388	293	291	†	584
Texas	126,387	126,018	129,700	127,886	131,211	136,590	141,825	145,940	143,929	153,689
Utah	124	98	262	136	135	180	220	377	†	543
Virginia	3	3	3	2	2	4	10	13	49	22
West Virginia	2,673	2,478	2,400	2,384	2,255	2,382	2,313	2,607	2,683	3,116
Wyoming	1,898	5,107	4,791	5,225	5,333	5,597	5,211	5,367	6,355	6,944
TOTAL U.S.	**411,936**	**394,163**	**392,191**	**392,532**	**391,633**	**394,405**	**401,095**	**426,502**	**441,951**	**462,014**

Sources: Interstate Oil Compact Commission and the National Stripper Well Association

†Not available

Note: 1984 data unavailable.

PRODUCING CRUDE OIL STRIPPER WELLS

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Alabama	44	75	71	78	69	78	68	73	92	95
Arizona	4	6	7	7	7	8	10	12	14	17
Arkansas	6,094	6,100	6,025	6,736	6,822	6,767	6,820	5,847	5,167	7,218
California	34,559	32,124	29,983	28,328	24,198	25,957	25,400	26,566	26,354	26,358
Colorado	818	881	942	990	1,016	1,074	1,143	1,255	1,354	1,861
Illinois	23,279	23,222	23,275	23,499	23,622	23,860	24,501	25,472	26,813	28,566
Indiana	3,962	4,654	4,853	5,056	5,038	5,092	5,022	5,874	5,353	5,854
Kansas	40,105	40,597	41,764	42,273	43,154	44,686	41,876	42,924	44,521	47,592
Kentucky	13,914	13,690	13,817	14,046	13,953	14,028	14,075	14,130	14 275	17,000
Louisiana	12,808	12,723	13,185	13,189	13,600	12,131	15,889	15,950	12,010	16,500
Michigan	3,370	3,330	3,260	3,276	3,331	3,405	3,325	3,057	3,361	3,367
Mississippi	278	310	617	654	657	813	1,523	2,138	1,923	837
Missouri	157	163	173	161	144	157	301	440	530	548
Montana	1,338	1,873	1,918	1,945	1,983	1,996	2,082	2,058	2,243	2,673
Nebraska	577	638	812	919	987	1,037	1,223	1,414	1,585	1,672
Nevada	0	0	0	0	0	0	4	0	0	0
New Mexico	9,991	10,274	10,544	10,956	11,401	11,829	12,519	13,226	13,882	14,280
New York	4,828	5,231	4,916	4,913	4,700	5,000	5,220	5,345	5,259	4,228
North Dakota	529	569	655	687	741	782	878	836	959	922
Ohio	15,406	15,482	15,586	16,122	17,006	18,222	19,650	21,982	22,966	24,263
Oklahoma	59,817	58,736	53,357	56,239	59,971	64,893	66,128	69,781	73,328	77,729
Pennsylvania	32,095	31,661	31,274	28,400	27,768	27,925	25,991	25,285	23,438	21,831
South Dakota	8	9	10	16	11	10	12	23	33	33
Tennessee	99	133	159	213	265	318	387	398	†	716
Texas	87,412	89,027	91,498	92,887	96,713	98,487	103,594	107,596	111,671	117,178
Utah	74	48	77	74	95	106	125	196	†	217
Virginia	3	7	7	4	5	7	8	12	20	26
West Virginia	13,600	13,680	13,800	13,875	13,925	14,000	14,150	14,300	14,550	14,900
Wyoming	926	2,629	3,148	3,387	3,453	3,642	3,252	3,349	4,792	5,020
TOTAL U.S.	**366,095**	**367,872**	**365,733**	**368,930**	**374,635**	**386,310**	**395,176**	**409,539**	**416,493**	**441,501**

Sources: Interstate Oil Compact Commission and the National Stripper Well Association

†Not available

Notes: 1984 data unavailable.
Figures as of December 31st each year.

CRUDE OIL WELLHEAD PRICES

($/bbl.)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	10.13	10.57	9.67	10.52	11.97	20.57	35.80	32.32	30.07	29.39
Alaska	5.22	5.03	5.84	6.02	10.74	15.63	23.63	21.85	17.18	17.04
Arizona	5.25	5.25	5.25	5.92	8.29	12.30	24.00*	31.00*	30.00*	27.00*
Arkansas	8.88	9.65	9.93	10.63	14.72	24.17	33.69	30.12	28.28	28.15
California	6.03	6.15	7.31	8.58	12.78	23.87	26.80	24.58	22.61	22.09
Colorado	9.60	9.65	10.10	10.84	13.28	22.91	35.69	31.56	28.92	28.09
Florida	11.71	11.24	11.67	12.00	13.07	18.84	25.00*	32.00*	31.10*	31.00*
Illinois	10.48	10.18	12.27	13.81	23.49	35.78	36.03	31.69	29.12	28.76
Indiana	10.54	10.89	12.46	13.70	23.28	35.91	36.07	31.66	29.06	28.72
Kansas	9.50	9.50	10.00	13.20	21.57	34.20	35.80	30.79	28.45	27.99
Kentucky	11.19	11.42	13.02	13.73	22.55	34.98	35.90	31.19	28.60	28.24
Louisiana	7.09	7.51	8.33	9.03	11.42	19.87	35.45	32.44	30.02	29.67
Michigan	10.74	10.84	11.00	11.86	14.47	23.54	35.74	31.80	28.93	28.54
Mississippi	6.66	7.14	8.20	7.91	10.74	20.85	30.47	29.04	26.76	27.26
Montana	7.83	8.42	8.58	9.04	12.03	20.53	34.69	31.25	28.80	28.07
Nebraska	9.01	8.99	10.46	11.40	18.13	30.60	35.32	30.98	28.58	27.83
New Mexico	8.29	8.84	9.23	10.17	14.33	24.06	35.04	31.82	29.26	28.69
New York	12.22	12.25	14.20	14.74	23.78	37.39	34.15	30.91	28.19	27.70
North Dakota	7.32	7.84	8.00	9.75	13.64	26.42	35.63	31.89	29.27	28.39
Ohio	11.89	11.77	13.16	13.80	22.79	36.64	36.11	30.90	28.14	27.71
Oklahoma	8.52	9.19	9.98	11.30	17.53	29.25	35.43	32.04	29.67	29.11
Pennsylvania	12.15	12.16	14.29	14.72	24.13	37.46	36.03	30.77	28.28	27.71
South Dakota	12.70	12.35	12.00	12.16	15.35	28.81	35.55	31.63	29.10	28.36
Tennessee	11.51	13.72	13.75	12.70	20.26	34.29	33.00*	32.10*	32.00*	26.00*
Texas	7.64	8.59	8.78	9.29	12.65	21.84	35.06	31.77	29.35	28.87
Utah	8.23	9.30	9.33	9.98	11.41	19.79	34.14	30.50	28.12	27.21
West Virginia	11.99	12.00	13.97	14.48	23.35	36.92	35.63	29.98	27.27	26.90
Wyoming	7.24	7.24	7.62	9.16	11.73	21.34	32.30	29.37	27.19	26.73
TOTAL U.S.	**7.67**	**8.19**	**8.57**	**9.00**	**12.64**	**21.59**	**31.77**	**28.52**	**26.19**	**25.88**

Source: Energy Information Administration
* Estimated.

Note: All prices are annual averages.

NATURAL GAS WELLHEAD PRICES

($/Mcf)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	.87	.99	1.47	1.50	2.04	3.19	4.77	3.44	4.28	2.75
Alaska	.30	.39	.40	.52	.52	.73	.62	.63	.73	1.45
Arizona	.28	.28	.34	.37	.41	1.15	1.85	2.59	3.08	2.70
Arkansas	.35	.53	.59	.75	.96	.70	1.81	2.13	2.29	2.50
California	.70	.94	1.17	1.36	1.71	3.13	2.57	3.09	3.57	3.00
Colorado	.26	.48	.81	.84	1.41	1.47	1.97	3.17	3.38	3.20
Florida	.97	.98	1.09	1.39	1.57	1.73	2.71	2.46	2.33	2.50
Illinois	.70	.99	1.20	1.29	1.86	1.90	2.47	2.62	2.84	2.90
Indiana	.39	.52	.69	.71	1.05	1.35	2.08	1.55	2.09	3.38
Kansas	.17	.42	.49	.57	.76	.77	.92	1.51	1.57	1.30
Kentucky	.54	.55	.55	.58	.95	.89	1.01	1.52	1.51	1.50
Louisiana	.42	.46	.70	.84	1.12	1.61	2.07	2.60	2.67	2.42
Maryland	.27	.32	.39	.61	1.04	.46	.48	.78	.55	.60
Michigan	.63	.90	1.01	1.20	1.74	2.36	2.86	3.19	3.58	3.50
Mississippi	.50	.71	.73	1.15	1.60	2.32	3.21	3.91	3.78	3.53
Montana	.43	.45	.72	.85	1.21	1.45	1.91	2.15	2.41	2.46
Nebraska	.54	.51	.65	.68	.85	.83	1.45	1.99	2.93	2.24
New Mexico	.41	.57	.81	.99	1.37	1.76	2.13	2.47	2.68	2.77
New York	.74	1.13	1.16	1.19	1.27	1.95	2.67	3.75	3.85	4.00
North Dakota	.23	.34	.35	.46	1.28	1.19	1.94	2.30	2.27	2.26
Ohio	.71	1.02	1.40	1.57	1.81	1.98	2.17	2.71	3.24	3.16
Oklahoma	.32	.50	.79	.90	1.12	1.51	1.88	2.74	2.83	2.69
Oregon	†	†	†	†	2.13	2.40	2.60	3.33	3.33	2.75
Pennsylvania	.68	.69	.80	.86	1.33	2.13	2.33	2.80	3.00	3.00
South Dakota	†	†	†	†	2.11	2.45	2.75	3.08	3.37	3.65
Tennessee	.43	.71	.74	1.64	1.70	1.76	2.55	3.00	2.50	3.00
Texas	.52	.72	.90	1.00	1.23	1.57	1.87	2.17	2.36	2.30
Utah	.48	.51	.61	.64	.72	1.12	1.10	3.06	3.40	3.63
Virginia	.52	1.14	1.26	1.31	1.68	2.85	2.15	3.69	3.30	3.75
West Virginia	.37	.57	.61	.66	1.05	3.00	3.00	3.20	3.10	3.45
Wyoming	.34	.41	.64	.79	1.13	1.92	2.77	3.22	3.18	3.32
TOTAL U.S.	**.45**	**.58**	**.79**	**.91**	**1.18**	**1.60**	**1.98**	**2.46**	**2.59**	**2.63**

Source: Energy Information Administration
† Not available

Notes: All prices are annual averages.
1984 prices are estimated.

WHOLESALE PETROLEUM PRICES — TOTAL U.S.

	Motor Gasoline (¢/gal.)	Kerosene (¢/gal.)	Distillate Fuel Oil (¢/gal.)	Residual Fuel Oil (¢/gal.)	Average Four Products (¢/gal.)	Average Four Products ($/bbl.)	Crude Oil ($/bbl.)
1935	5.42	4.10	3.26	1.74	3.93	1.65	0.97
1936	6.32	3.94	3.39	1.81	4.41	1.85	1.09
1937	6.68	4.81	3.96	2.08	4.80	2.02	1.17
1938	5.97	4.57	3.62	1.55	4.22	1.77	1.14
1939	5.79	4.16	3.34	1.50	4.06	1.71	1.04
1940	5.26	4.36	3.55	1.74	3.91	1.64	1.02
1941	6.05	4.40	3.67	2.05	4.41	1.85	1.14
1942	6.14	4.56	3.91	2.18	4.54	1.91	1.20
1943	6.32	4.72	4.09	2.34	4.71	1.98	1.20
1944	6.47	4.78	4.34	2.49	4.87	2.05	1.20
1945	6.48	5.18	5.33	2.60	4.93	2.07	1.20
1946	6.60	5.70	5.06	3.05	5.26	2.21	1.39
1947	8.57	7.28	6.51	4.31	6.92	2.91	1.93
1948	10.53	9.92	8.94	5.72	8.81	3.70	2.60
1949	10.71	9.11	7.72	3.31	7.96	3.34	2.54
1950	10.86	9.39	7.97	3.98	8.29	3.48	2.51
1951	11.40	9.85	8.50	4.42	8.79	3.69	2.53
1952	11.38	9.90	8.52	3.84	8.62	3.62	2.53
1953	12.01	10.23	8.83	3.73	8.96	3.76	2.68
1954	11.66	10.40	8.94	3.97	8.88	3.73	2.78
1955	11.62	10.53	9.08	4.53	9.06	3.81	2.77
1956	11.75	10.99	9.45	5.30	9.43	3.96	2.79
1957	12.34	11.54	10.05	6.15	10.10	4.24	3.09
1958	11.74	10.96	9.39	4.82	9.27	3.89	3.01
1959	11.64	11.26	9.31	4.79	9.22	3.87	2.90
1960	11.61	11.17	8.79	4.88	9.15	3.84	2.88
1961	11.62	11.49	9.10	4.85	9.21	3.87	2.89
1962	11.52	11.42	9.11	4.78	9.13	3.84	2.90
1963	11.35	11.51	9.18	4.61	9.01	3.79	2.89
1964	11.27	10.93	8.65	4.50	8.83	3.71	2.88
1965	11.52	11.28	9.04	4.81	9.12	3.83	2.86
1966	11.59	11.49	9.09	4.73	9.15	3.84	2.88
1967	11.84	11.96	9.71	4.53	9.33	3.92	2.92
1968	11.55	12.03	9.84	4.30	9.14	3.84	2.94
1969	11.80	11.98	10.06	4.20	9.27	3.89	3.09
1970	12.33	12.43	10.45	6.14	10.20	4.28	3.18
1971	12.70	12.90	10.75	7.76	10.94	4.59	3.39
1972	12.70	12.87	10.61	7.60	10.87	4.57	3.39
1973	14.72	14.08	12.61	8.45	12.49	5.25	3.89
1974	25.53	24.02	22.57	20.43	23.48	9.86	6.87
1975	30.27	27.41	26.09	22.03	27.03	11.35	7.67
1976	33.82	31.67	30.38	21.66	29.55	12.41	8.19
1977	36.99	35.81	34.41	25.87	33.21	13.95	8.57
1978	39.22	37.23	35.66	23.00	33.72	14.16	9.00
1979	56.84	56.60	54.47	33.63	49.50	20.79	12.64
1980	87.40	80.26	78.21	44.43	72.77	30.56	21.59
1981	101.63	101.03	97.20	61.17	88.75	37.28	31.77
1982	94.56	97.18	91.95	57.80	83.27	34.97	28.52
1983	86.97	85.12	80.05	57.30	76.94	32.32	26.19
1984	81.14	84.75	79.62	59.14	74.49	31.29	25.88

Sources: Product prices from IPAA.
Crude oil wellhead prices from Energy Information Administration.

Notes: Data reflect price trends only, not actual sale prices.
Motor gasoline prices represent leaded fuel prior to 1982, and unleaded from 1982 on.

WHOLESALE PETROLEUM PRICES—EAST OF CALIFORNIA

	Motor Gasoline (¢/gal.)	Kerosene (¢/gal.)	Distillate Fuel Oil (¢/gal.)	Residual Fuel Oil (¢/gal.)	Average Four Products (¢/gal.)	Average Four Products ($/bbl.)	Crude Oil ($/bbl.)
1935	5.45	4.12	3.37	1.79	3.97	1.67	1.00
1936	6.12	4.01	3.52	1.86	4.35	1.83	1.11
1937	6.23	4.76	4.07	2.19	4.62	1.94	1.21
1938	5.45	4.39	3.78	1.62	4.00	1.68	1.17
1939	5.29	3.99	3.55	1.57	3.85	1.62	1.04
1940	4.96	4.33	3.80	1.90	3.84	1.61	1.04
1941	5.97	4.38	3.90	2.19	4.45	1.87	1.17
1942	6.28	4.57	4.17	2.26	4.67	1.96	1.23
1943	6.41	4.69	4.19	2.31	4.76	2.00	1.23
1944	6.42	4.73	4.17	2.46	4.81	2.02	1.23
1945	6.36	4.72	4.16	2.59	4.81	2.02	1.23
1946	6.40	5.38	4.84	3.08	5.12	2.15	1.43
1947	8.45	7.14	6.44	4.48	6.89	2.89	1.97
1948	10.21	9.62	8.94	5.90	8.70	3.65	2.63
1949	10.39	8.36	7.34	3.10	7.64	3.21	2.60
1950	10.77	8.76	7.79	4.10	8.22	3.45	2.59
1951	11.26	9.31	8.43	4.47	8.70	3.65	2.58
1952	11.25	9.38	8.40	3.76	8.48	3.56	2.58
1953	11.79	9.40	8.45	3.59	8.71	3.66	2.71
1954	11.43	9.55	8.71	3.92	8.68	3.64	2.82
1955	11.42	9.76	9.02	4.66	8.95	3.76	2.81
1956	11.55	10.26	9.48	5.34	9.31	3.91	2.82
1957	12.06	10.64	9.95	6.03	9.86	4.14	3.09
1958	11.61	9.87	9.12	4.56	9.03	3.79	3.03
1959	11.57	10.14	9.36	4.70	9.11	3.83	2.95
1960	11.69	10.01	8.93	4.86	9.14	3.84	2.94
1961	11.72	10.41	9.31	4.82	9.22	3.87	2.95
1962	11.55	10.34	9.27	4.67	9.08	3.82	2.96
1963	11.33	10.44	9.32	4.57	8.96	3.76	2.95
1964	11.29	9.71	8.62	4.56	8.79	3.69	2.93
1965	11.56	10.15	9.00	4.82	9.08	3.81	2.93
1966	11.55	10.41	9.13	4.72	9.08	3.81	2.95
1967	11.76	11.00	9.74	4.55	9.26	3.89	3.00
1968	11.50	11.09	9.81	4.33	9.08	3.81	3.03
1969	11.82	11.03	9.89	4.34	9.25	3.88	3.19
1970	12.57	11.59	10.32	6.35	10.32	4.33	3.27
1971	12.81	12.18	10.66	7.55	10.88	4.57	3.48
1972	12.75	12.14	10.58	7.36	10.78	4.53	3.48
1973	14.83	13.64	12.47	8.48	12.51	5.25	3.99
1974	25.10	24.00	22.20	21.62	23.57	9.90	7.09
1975	30.23	27.61	25.98	23.06	27.31	11.47	7.91
1976	33.71	31.42	29.80	22.24	29.57	12.42	8.50
1977	36.83	36.33	34.57	25.99	33.21	13.95	8.83
1978	38.78	38.00	36.04	23.46	33.73	14.17	9.80
1979	56.29	56.51	53.96	32.63	48.85	20.52	13.20
1980	87.04	80.66	78.12	44.34	72.57	30.48	22.67
1981	101.56	102.36	98.75	61.84	89.26	34.49	34.92
1982	94.41	99.03	92.51	57.30	83.20	34.95	31.72
1983	87.64	87.03	80.77	56.36	77.19	32.42	29.34
1984	81.10	87.29	80.78	58.20	74.49	31.29	28.95

Source: IPAA

Notes: Data reflect price trends only, not actual sale prices. Motor gasoline prices represent leaded fuel prior to 1982, and unleaded from 1982 on.

SEVERANCE AND PRODUCTION TAXES PAID

(thous. $)	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Alabama	8,090	9,229	11,529	15,502	17,310	30,018	55,757	58,036	80,959	114,086
Alaska	27,694	25,896	52,946	107,721	251,636	830,520	1,170,090	1,581,116	1,493,700	1,393,100
Arkansas	6,287	6,689	9,206	9,573	11,261	17,858	27,047	24,602	22,812	21,329
California	4,963	5,326	6,841	8,338	9,103	9,025	10,249	11,840	14,196	17,018
Colorado	18,000	18,146	6,033	6,376	7,089	9,535	18,010	23,251	23,251	20,598
Florida	20,214	26,439	34,637	47,187	52,426	74,698	95,240	63,743	37,986	24,521
Indiana	495	509	723	686	1,159	1,756	1,835	1,764	1,578	1,546
Kansas	700	785	819	828	941	735	718	1,176	56,149	116,254
Kentucky	349	418	408	395	404	876	12,544	13,737	14,283	14,529
Louisiana	539,572	507,140	485,339	466,346	458,009	513,151	803,147	971,677	859,930	779,666
Maryland	6	5	3	4	6	4	3	2	1	3
Michigan	6,104	9,427	9,729	12,059	14,149	46,994	77,105	83,805	80,352	78,441
Mississippi	20,914	23,233	24,501	27,756	34,974	69,011	108,145	113,669	99,159	96,888
Montana	6,583	7,009	7,412	7,731	10,550	16,968	29,783	50,075	44,237	56,696
Nebraska	983	1,113	1,241	1,318	2,018	3,655	4,776	5,969	4,325	5,128
Nevada	†	†	†	†	†	†	4	3	25	98
New Mexico	74,694	103,860	132,517	151,820	185,349	287,152	369,331	348,437	347,548	381,537
North Dakota	6,880	8,617	9,604	11,100	15,094	53,593	91,210	126,138	166,700	160,436
Ohio	1,068	1,063	1,146	1,246	1,431	1,579	1,731	1,333	1,856	4,396
Oklahoma	128,113	151,797	193,614	233,100	283,791	437,306	601,846	744,629	709,917	709,364
Oregon	†	†	†	†	26	72	78	427	416	318
South Dakota	68	58	68	71	456	764	1,270	1,707	1,707	1,557
Tennessee	25	25	28	32	116	378	530	931	1,398	1,201
Texas	664,333	795,903	902,801	955,051	1,026,169	1,527,867	2,204,602	2,373,846	2,251,314	2,215,647
Utah	5,428	6,528	6,441	6,643	6,978	10,584	16,041	22,296	26,021	38,443
West Virginia	3,840	5,068	8,639	10,505	12,002	21,852	31,008	39,762	35,300	44,200
Wyoming	38,336	42,314	36,521	53,165	47,930	51,980	169,100	257,526	381,418	270,182
TOTAL U.S.	**1,582,739**	**1,756,597**	**1,942,746**	**2,134,553**	**2,450,368**	**4,008,931**	**5,901,200**	**6,921,497**	**6,756,538**	**6,567,182**

Source: Various state and industry contacts
† Not available

Notes: Includes state and local taxes.
States vary on the use of fiscal or calendar year data.

EMPLOYMENT IN THE PETROLEUM INDUSTRY — 1984

	MINING	MANUFACTURING		TRANSPORTATION		WHOLESALE	RETAIL	TOTAL
	Oil and Gas Extraction	Petroleum Refining	Oils and Greases	Pipelines, Except Gas	Gas Distribution	Petroleum Products	Gasoline Stations	
Alabama	1,872	372	30	98	3,033	4,869	7,317	17,591
Alaska	8,159	204	2	1,035	313	531	1,270	11,514
Arizona	162	†	†	101	1,093	1,434	7,582	10,372
Arkansas	4,044	680	†	†	2,479	2,710	4,624	14,537
California	41,393	27,188	735	1,057	11,287	16,052	61,577	159,289
Colorado	25,329	602	45	108	2,298	2,885	8,289	39,556
Connecticut	169	†	80	†	1,290	2,575	9,243	13,357
Delaware	33	955	10	0	326	282	1,360	2,966
Dist. of Columbia	47	110	0	0	684	232	1,066	2,139
Florida	1,081	58	193	60	2,203	7,006	29,044	39,645
Georgia	100	115	110	480	3,711	6,013	15,520	26,049
Hawaii	†	407	0	0	342	549	3,580	4,878
Idaho	104	0	0	17	450	1,545	2,487	4,603
Illinois	7,098	7,003	901	984	8,431	9,908	26,293	60,618
Indiana	935	2,991	210	469	2,963	3,643	14,520	25,731
Iowa	56	0	56	174	1,409	3,225	10,940	15,860
Kansas	16,200	2,500	300	1,800	4,400	2,750	7,650	35,600
Kentucky	3,597	3,486	109	156	3,074	2,819	9,511	22,752
Louisiana	78,000	12,000	600	1,300	7,100	5,700	8,400	113,100
Maine	15	0	0	†	†	1,214	2,544	3,773
Maryland	22	0	254	0	1,212	3,184	13,133	17,805
Massachusetts	79	65	321	†	4,775	3,691	14,173	23,104
Michigan	4,279	1,618	514	259	7,608	5,387	21,370	41,035
Minnesota	†	†	†	213	2,469	2,558	15,437	20,677
Mississippi	8,406	1,670	105	†	2,169	3,622	5,205	21,177
Missouri	135	37	384	266	5,013	6,867	14,937	27,639
Montana	4,293	865	0	87	123	1,509	2,581	9,458
Nebraska	952	42	165	122	3,292	1,849	6,131	12,553
Nevada	408	47	0	19	588	393	3,460	4,915
New Hampshire	1	0	6	3	249	518	2,701	3,478
New Jersey	117	7,684	1,176	172	2,154	4,030	20,017	35,350
New Mexico	13,450	890	33	278	3,656	1,762	4,198	24,267
New York	2,561	10,018	410	134	7,055	10,033	29,246	59,457
North Carolina	8	0	181	115	2,469	5,203	9,271	17,247
North Dakota	5,775	245	155	174	984	2,405	2,174	11,912
Ohio	11,706	5,650	680	654	7,648	5,876	27,915	60,129
Oklahoma	69,758	8,293	415	1,612	5,718	6,091	6,626	98,513
Oregon	181	**	10	**	1,441	2,225	7,736	11,593
Pennsylvania	5,400	10,100	900	700	8,800	10,700	26,500	63,100
Rhode Island	35	†	†	†	849	534	2,377	3,795
South Carolina	21	0	†	†	572	3,498	7,105	11,196
South Dakota	154	†	†	64	120	1,441	2,634	4,413
Tennessee	571	184	267	43	1,753	4,588	11,922	19,328
Texas	260,738	37,936	1,061	4,894	28,504	24,910	35,660	393,703
Utah	4,961	**	818	81	2,809	1,646	4,557	14,872
Vermont	0	0	†	0	123	308	1,654	2,085
Virginia	214	245	†	†	2,496	7,620	14,615	25,190
Washington	3,858	1,435	61	84	1,525	2,653	9,533	19,149
West Virginia	6,113	437	203	117	5,398	2,190	3,737	18,195
Wisconsin	27	†	116	154	2,921	3,362	14,107	20,687
Wyoming	16,899	1,023	3	348	1,088	1,277	2,939	23,577
TOTAL U.S.	**609,516**	**147,155**	**11,619**	**18,432**	**172,467**	**207,872**	**576,468**	**1,743,529**

Source: Various state agencies
† Not available
** Data combined with adjacent category for confidentiality

Note: All figures are estimated and do not necessarily agree with the Bureau of Labor Statistics national averages due to confidentiality rules.

DRILLING SUMMARY — 1983

	Oil Wells	Gas Wells	Dry Holes	Total Wells
Number of Wells Drilled	33,485	12,919	21,132	67,536
Footage Drilled *(thous.)*	130,824	72,487	97,915	301,226
Total Cost *(million $)*	9,504	7,856	7,745	25,105
Average Depth *(ft.)*	3,907	5,611	4,633	4,460

Source: Joint Association Survey

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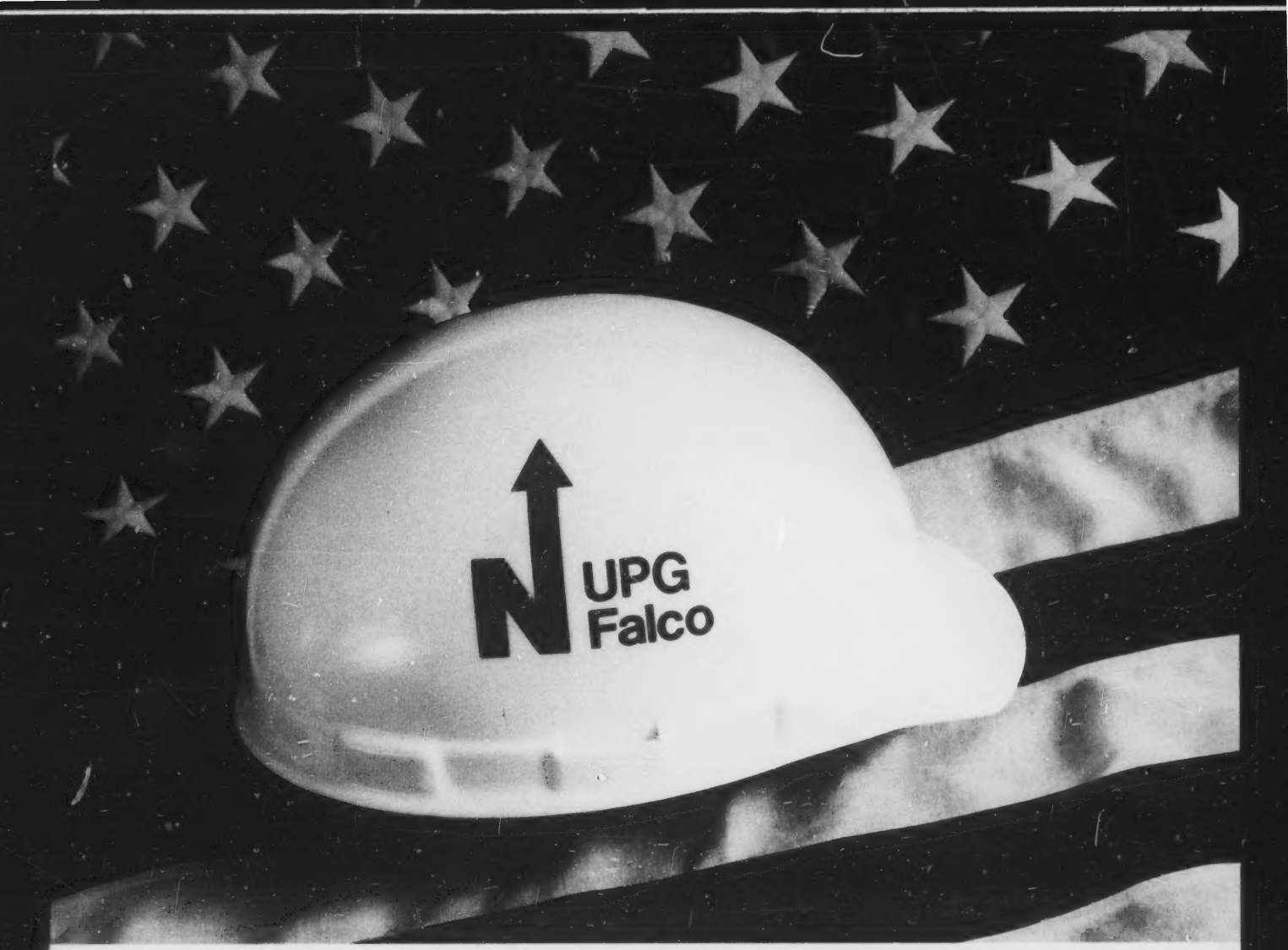
DRILLING COSTS

	Total Costs (thous. $)	Per Well ($)	Per Foot ($)
1964	2,427,367	55,820	12.86
1965	2,407,437	60,648	13.44
1966	2,360,740	68,386	14.95
1967	2,299,178	72,902	15.97
1968	2,409,360	81,463	16.83
1969	2,610,671	88,554	17.56
1970	2,578,682	94,885	18.84
1971	2,371,492	94,703	19.03
1972	2,814,166	106,424	20.76
1973	3,074,532	117,152	22.50
1974	4,366,989	138,718	28.93
1975	6,571,214	177,793	36.99
1976	7,461,680	191,615	40.46
1977	9,956,453	229,181	46.82
1978	13,061,000	279,950	56.64
1979	16,078,930	331,367	67.71
1980	22,800,356	367,682	77.03
1981	36,665,457	453,691	94.30
1982	39,428,119	514,378	108.73
1983	25,104,543	371,721	83.34

Source: Joint Association Survey
Note: 1984 data unavailable

COST INDICES

	Oil Field Machinery	Oil Well Casing	Line Pipe (carbon)	Oil Field Wages
		(1967 = 100)		
1965	95.2	96.2	97.9	93.2
1966	96.5	96.2	97.9	96.2
1967	100.0	100.0	100.0	100.0
1968	106.4	101.5	103.9	104.3
1969	112.7	104.5	109.2	110.8
1970	118.4	109.1	112.8	117.9
1971	122.6	120.7	124.7	127.7
1972	127.3	127.3	133.7	139.1
1973	133.2	133.2	139.1	147.4
1974	157.8	170.7	189.8	163.1
1975	196.3	211.5	227.8	184.9
1976	217.7	223.1	234.6	203.4
1977	236.6	244.3	260.5	220.3
1978	261.6	271.6	296.6	247.7
1979	289.7	285.8	303.4	270.2
1980	335.7	326.5	336.3	298.5
1981	401.0	407.5	394.2	331.7
1982	434.5	451.9	417.0	363.7
1983	428.4	406.1	405.6	381.2
1984	424.9	386.0	405.6	393.2



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(mill. bbls.)	United States	Canada	Latin America	Middle East	Africa	Asia	Western Europe	Communist Nations	Total World
1975	32,682	6,653	35,368	368,411	65,085	21,234	25,488	103,000	657,921
1976	33,502	6,247	29,609	367,681	60,570	19,391	24,539	101,100	640,090
1977	31,780	5,971	40,270	366,166	59,200	19,749	26,863	98,000	645,805
1978	31,335	6,860	41,247	369,996	57,892	20,007	23,966	94,000	641,772
1979	29,810	6,800	56,473	361,947	57,072	19,355	23,476	90,000	642,175
1980	29,805	6,400	69,490	362,071	55,148	19,631	23,085	86,300	651,930
1981	29,426	7,300	84,982	362,840	56,172	19,151	24,635	85,845	670,350
1982	27,858	7,020	78,482	369,286	57,822	19,756	22,924	85,115	668,262
1983	27,735	6,730	81,676	370,101	56,907	18,969	23,020	84,600	669,738
1984	27,300*	7,075	83,316	398,381	55,541	18,530	24,426	84,100	698,667

Sources: American Petroleum Institute and Energy Information Administration.
* Preliminary estimate

Notes: Totals may not add due to rounding.
Data as of December 31st.

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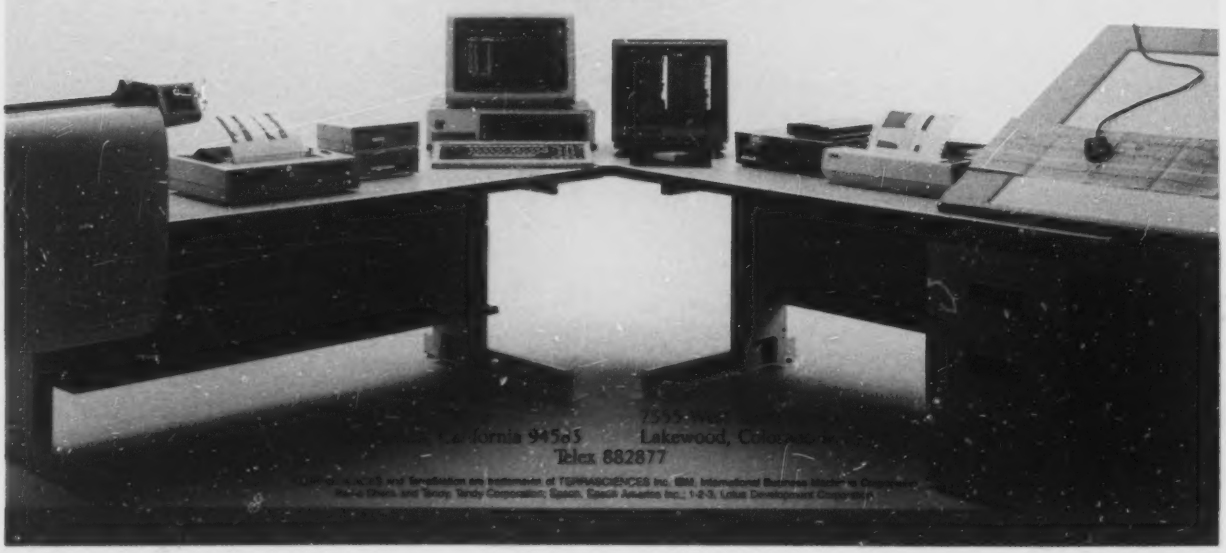

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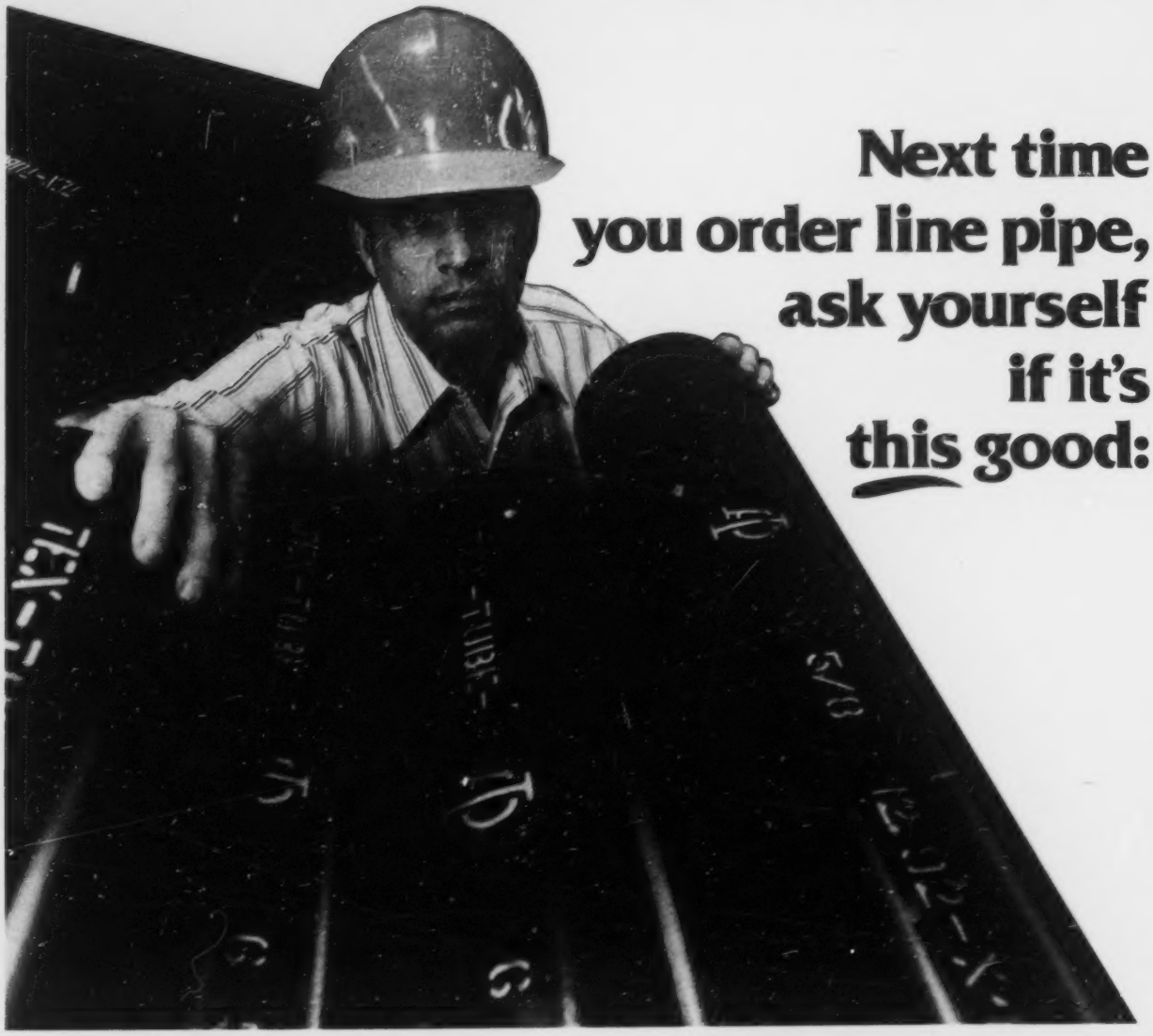

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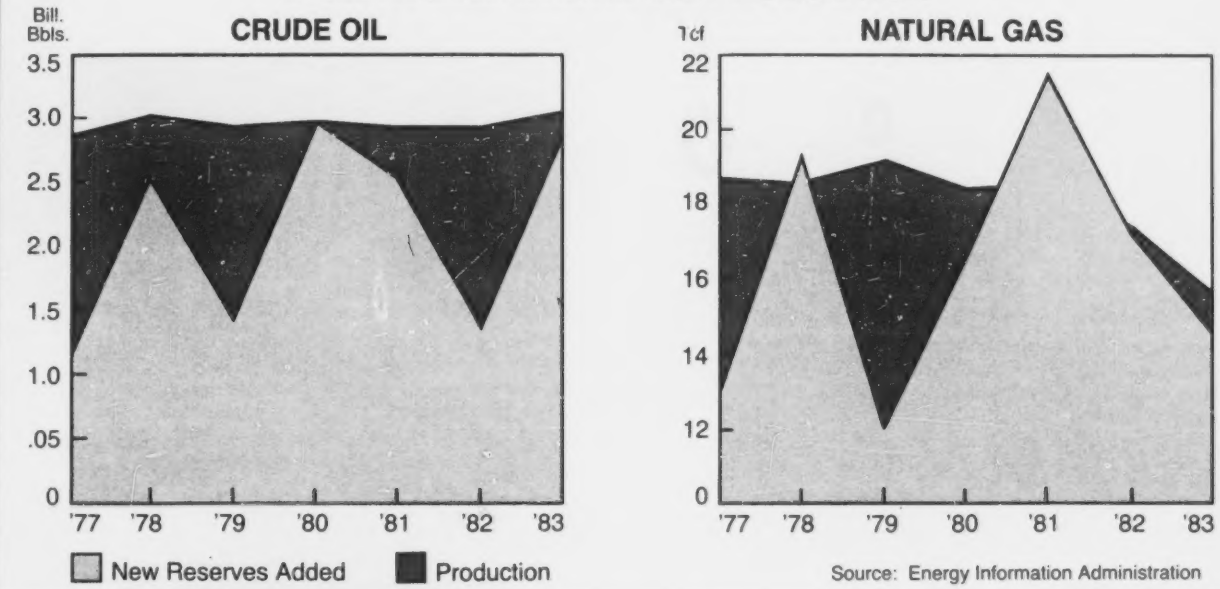
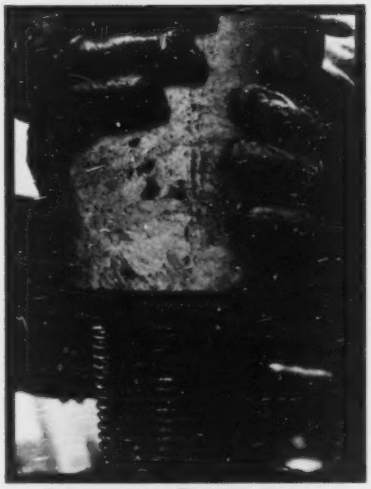


Source: Energy Information Administration



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April 30–May 2, 1986
Nashville, Tennessee

1986 Annual Meeting
October 26–28, 1986
Dallas, Texas

ENERGY CONSUMPTION

	Crude Oil and NGL	Natural Gas	Total Energy
	(Quadrillion BTU)		
1950	13.32	5.97	33.09
1951	14.43	7.05	35.48
1952	14.96	7.55	35.31
1953	15.56	7.91	36.28
1954	15.84	8.33	35.28
1955	17.25	9.00	38.83
1956	17.94	9.61	40.39
1957	17.93	10.19	40.50
1958	18.53	10.66	40.36
1959	19.32	11.72	42.15
1960	19.92	12.39	43.81
1961	20.22	12.93	44.47
1962	21.05	13.73	46.54
1963	21.70	14.40	48.34
1964	22.30	15.29	50.51
1965	23.25	15.77	52.69
1966	24.40	17.00	55.67
1967	25.28	17.94	57.58
1968	26.98	19.21	61.01
1969	28.34	20.68	64.20
1970	29.52	21.79	66.44
1971	30.56	22.47	67.90
1972	32.95	22.70	71.27
1973	34.84	22.51	74.29
1974	33.46	21.73	72.55
1975	32.73	19.95	70.55
1976	35.18	20.35	74.37
1977	37.12	19.93	76.29
1978	37.97	20.00	78.09
1979	37.12	20.67	78.90
1980	34.20	20.39	75.96
1981	31.93	19.93	73.99
1982	30.23	18.51	70.84
1983	30.05	17.35	70.50
1984	31.13	18.19	74.02

Source: Energy Information Administration

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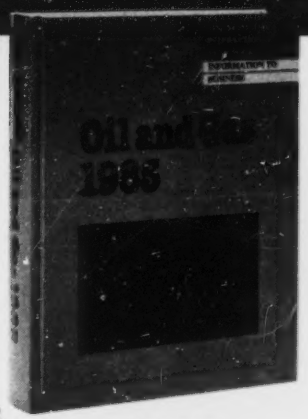

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HOURLY EARNINGS

	Oil & Gas Industry	All Mfg. Industry
	(Average $/hr.)	
1950	1.72	1.44
1951	1.85	1.56
1952	1.98	1.65
1953	2.10	1.74
1954	2.15	1.78
1955	2.20	1.86
1956	2.35	1.95
1957	2.47	2.05
1958	2.54	2.11
1959	2.65	2.19
1960	2.69	2.26
1961	2.80	2.32
1962	2.83	2.39
1963	2.92	2.46
1964	2.95	2.53
1965	3.03	2.61
1966	3.13	2.72
1967	3.25	2.83
1968	3.39	3.01
1969	3.60	3.19
1970	3.83	3.36
1971	4.15	3.56
1972	4.52	3.82
1973	4.79	4.09
1974	5.30	4.42
1975	6.01	4.83
1976	6.61	5.22
1977	7.16	5.68
1978	8.05	6.17
1979	8.78	6.70
1980	9.70	7.27
1981	10.78	7.99
1982	11.81	8.50
1983	12.38	8.84
1984	12.78	9.17

Source: Bureau of Labor Statistics

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PEAK YEAR MILESTONES

Seismic Crew Months Worked	1952	7,958	
Acreage Under Lease	1984	587,646	thous. acres
Rotary Rigs Active	1981	3,970	
New-field Wildcat Wells Drilled	1981	8,052	
Wildcat Wells Drilled	1982	16,482	
Oil Wells Drilled	1981	42,520	
Gas Wells Drilled	1981	19,742	
Dry Holes Drilled	1981	26,972	
Total Wells Drilled	1981	91,600	
Total Footage Drilled	1981	412,310	thous. ft.
Crude Oil Production	1970	9,637	thous. b/d
Stripper Well Crude Oil Production	1961	1,622	thous. b/d
Petroleum Imports	1977	8,787	thous. b/d
Petroleum Demand	1978	19,209	thous. b/d
Natural Gas Production	1973	22,648	Bcf
Natural Gas Imports	1979	1,253	Bcf

FINANCIAL DATA

	Rates of Return		Exploration & Development Outlays		
	Oil & Gas Companies	All Mftg. Companies	Larger Companies	Inde-pendents	Total
	(%)		(million $)		
1960	8.8	9.2	2,412	1,788	4,200
1961	8.7	8.9	2,417	1,583	4,000
1962	8.8	9.8	2,848	1,577	4,425
1963	9.8	10.3	2,452	1,673	4,125
1964	10.1	11.6	2,817	1,633	4,450
1965	11.3	13.0	2,847	1,363	4,210
1966	12.3	13.4	2,990	1,260	4,250
1967	12.6	11.7	3,212	1,153	4,365
1968	12.2	12.1	4,087	1,303	5,390
1969	10.9	11.5	3,768	1,482	5,250
1970	9.9	9.3	3,119	1,656	4,775
1971	9.3	9.7	2,740	1,160	3,900
1972	9.6	10.6	4,225	2,255	6,480
1973	10.5	13.0	5,275	2,865	8,140
1974	14.6	14.9	8,550	3,805	12,355
1975	12.9	11.6	6,830	3,420	10,250
1976	15.2	13.9	8,646	5,864	14,510
1977	14.2	14.2	10,305	6,195	16,500
1978	13.8	15.0	11,275	8,025	19,300
1979	18.2	16.5	15,000	11,750	26,750
1980	18.1	14.1	20,553	15,647	36,200
1981	16.4	14.0	29,765	26,710	56,475
1982	12.8	9.2	30,000	25,400	55,400
1983	10.9	10.5	22,650	18,225	40,875

Source: Chase Manhattan Bank and Federal Trade Commission
Note: 1984 data unavailable.

CONSUMPTION OF PETROLEUM PRODUCTS — 1984

(thous. bbls.)	Motor Gasoline	Aviation Fuels	Middle Distillates	Residual Fuel	Asphalt Road Oil	Propane	All Other	Total Products
Alabama	41,155	2,985	15,541	2,186	4,121	3,583	10,679	80,250
Alaska	8,775	13,422	11,424	714	498	144	5,369	40,346
Arizona	33,496	4,097	7,639	238	2,825	286	7,457	56,038
Arkansas	26,952	598	12,688	641	861	3,297	6,913	51,950
California	274,876	52,834	83,889	59,067	17,350	10,413	76,507	574,936
Colorado	37,240	8,137	11,870	138	3,512	2,517	9,734	73,148
Connecticut	31,529	980	15,734	32,209	1,062	1,072	12,677	95,263
Delaware	6,894	84	8,979	3,692	270	562	3,144	23,625
Dist. of Columbia	3,677	96	3,304	†	23	†	1,090	8,190
Florida	118,880	18,848	30,780	40,391	7,903	7,669	34,455	258,926
Georgia	67,093	14,291	20,175	3,424	6,410	5,118	17,884	134,395
Hawaii	8,121	10,415	2,834	11,959	233	288	5,196	39,046
Idaho	9,796	319	5,168	333	539	532	2,561	19,248
Illinois	99,327	2,164	28,434	1,361	6,511	7,525	22,306	167,628
Indiana	57,001	14,644	28,413	2,330	6,821	5,022	17,534	131,765
Iowa	33,839	564	16,644	357	2,093	7,396	9,347	70,240
Kansas	51,193	2,723	28,763	756	2,192	33,965	18,357	137,949
Kentucky	37,996	2,942	18,096	410	2,467	4,435	10,184	76,530
Louisiana	51,243	10,549	33,699	27,177	2,296	11,206	20,901	157,071
Maine	12,970	416	9,651	10,766	1,266	562	5,469	41,100
Maryland	42,518	2,250	17,379	8,911	5,702	1,611	12,030	90,401
Massachusetts	51,951	6,563	34,911	42,990	1,248	1,224	21,319	160,206
Michigan	94,150	4,310	24,143	1,672	3,172	8,397	20,851	156,695
Minnesota	57,301	7,140	24,708	1,393	5,308	5,523	15,560	116,933
Mississippi	29,744	1,239	15,381	4,953	4,048	6,435	9,486	71,286
Missouri	55,560	5,398	17,140	352	4,502	4,896	13,484	101,332
Montana	12,027	627	7,400	633	1,382	1,187	3,570	26,826
Nebraska	17,400	648	11,382	238	718	3,533	5,206	39,125
Nevada	10,888	3,591	5,355	54	853	522	3,264	24,527
New Hampshire	5,556	281	6,178	4,068	1,100	775	2,756	20,714
New Jersey	103,564	40,267	78,591	41,172	7,095	2,653	41,957	315,299
New Mexico	19,146	1,067	8,639	487	2,161	5,338	5,654	42,492
New York	109,968	2,373	66,171	64,482	6,124	4,984	39,003	293,105
North Carolina	70,446	3,781	27,063	6,173	4,377	6,246	18,126	136,212
North Dakota	10,118	211	8,431	853	1,132	2,991	3,643	27,379
Ohio	107,087	6,179	38,667	2,361	7,822	4,772	25,617	192,505
Oklahoma	43,398	4,501	18,706	1,621	3,516	9,115	12,411	93,268
Oregon	30,936	1,854	16,411	3,257	2,863	1,149	8,668	65,138
Pennsylvania	108,545	9,987	54,609	22,520	4,617	4,896	31,493	236,667
Rhode Island	10,533	386	8,563	1,749	1,519	205	3,523	26,478
South Carolina	35,370	542	11,309	2,939	1,412	3,168	8,402	63,142
South Dakota	9,075	208	5,777	64	915	1,516	2,695	20,250
Tennessee	62,457	3,392	26,944	610	4,339	2,006	15,311	115,059
Texas	248,828	57,790	131,562	50,825	12,197	75,357	88,499	665,058
Utah	16,757	2,493	6,603	749	1,524	965	4,465	33,556
Vermont	2,646	154	1,831	234	257	765	904	6,791
Virginia	58,435	7,334	26,425	9,647	4,158	2,276	16,620	124,895
Washington	46,305	13,100	24,277	9,011	2,986	2,019	14,996	112,694
West Virginia	14,422	203	6,912	1,433	543	560	3,695	27,768
Wisconsin	47,582	1,400	19,328	143	1,723	5,580	11,628	87,384
Wyoming	7,140	179	9,109	343	1,390	3,295	3,293	24,749
TOTAL U.S.	**2,551,906**	**350,556**	**1,153,630**	**484,086**	**169,956**	**279,551**	**765,893**	**5,755,575**

Sources: Energy Information Administration and The Asphalt Institute.
†Included with Maryland data

Notes: Middle Distillates include kerosene.
All Other includes naphtha, lubricants, waxes, petroleum coke and still gas.
Totals may not add due to rounding.

CRUDE OIL PRODUCTION BY CHASE GROUP

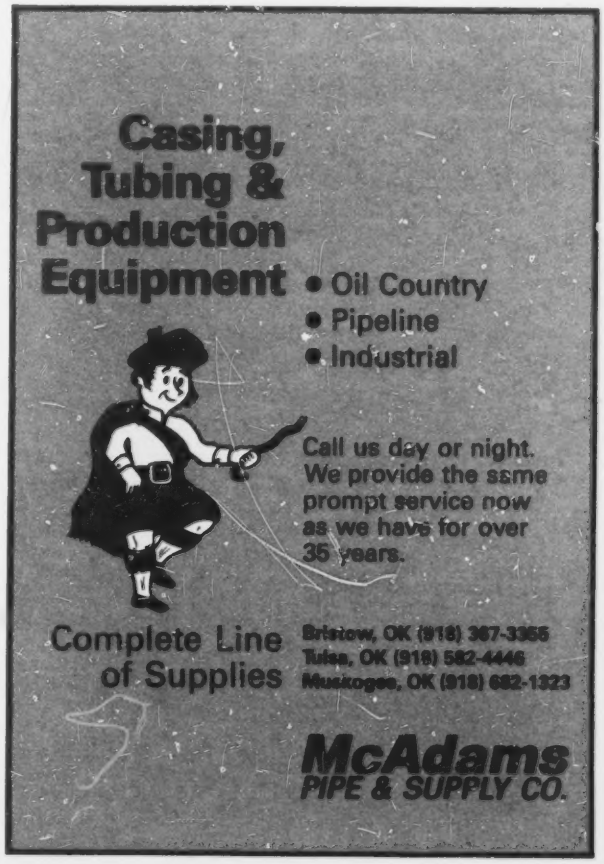
	Chase Group	All Other	Total
		(thous. b/d)	
1950	3,217	2,190	5,407
1951	3,702	2,456	6,158
1952	3,779	2,477	6,256
1953	4,127	2,331	6,458
1954	3,955	2,387	6,342
1955	4,173	2,634	6,807
1956	4,406	2,745	7,151
1957	4,487	2,683	7,170
1958	4,141	2,569	6,710
1959	4,379	2,675	7,054
1960	4,423	2,612	7,035
1961	4,510	2,673	7,183
1962	4,706	2,626	7,332
1963	4,905	2,637	7,542
1964	5,017	2,597	7,614
1965	5,269	2,535	7,804
1966	5,628	2,667	8,295
1967	6,070	2,740	8,810
1968	6,312	2,784	9,096
1969	6,418	2,820	9,238
1970	6,814	2,823	9,637
1971	6,747	2,716	9,463
1972	6,730	2,711	9,441
1973	6,570	2,638	9,208
1974	6,173	2,601	8,774
1975	5,891	2,484	8,375
1976	5,587	2,545	8,132
1977	5,668	2,577	8,245
1978	6,193	2,514	8,707
1979	5,944	2,608	8,552
1980	6,071	2,526	8,597
1981	5,932	2,640	8,572
1982	5,964	2,685	8,649
1983	5,909	2,779	8,688
Excluding Alaska North Slope			
1977	5,358	2,576	7,934
1978	5,103	2,514	7,617
1979	4,661	2,608	7,269
1980	4,554	2,526	7,080
1981	4,408	2,640	7,048
1982	4,343	2,685	7,028
1983	4,263	2,779	7,042

Source: Chase Manhattan Bank
Note: 1984 data unavailable.

GASOLINE RETAIL PRICES

	Excluding Taxes	Taxes (¢/gal.)	Pump Price
1969	23.85	10.99	34.84
1970	24.55	11.14	35.69
1971	25.24	11.24	36.48
1972	24.46	11.67	36.13
1973	26.88	11.94	38.82
1974	41.20	12.00	53.20
1975	44.93	11.77	56.70
1976	46.97	12.03	59.00
1977	49.83	12.37	62.20
1978	49.98	12.63	62.60
1979	73.38	11.71	85.09
1980	107.07	11.83	118.90
1981	119.91	13.01	132.92
1982	111.29	14.23	125.52
1983	102.69	19.19	121.88
1984	99.57	21.14	120.71

Source: *Oil and Gas Journal*
Note: Data represents regular leaded gasoline.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CRANK ANGLE, A1	P.R. LOAD, W	PITMAN LOAD, R3	C'BERG LOAD	REAR POST LEG LOAD	REAR FDN LOAD, Z1	FWD FDN LOAD, Z2
0	17300	17821	36799	10957	4153	30593
15	17300	18076	37257	8214	3107	31679
30	17300	18384	37493	5184	2201	32704
45	17300	18419	37394	2316	1495	33599
60	17300	18167	36994	148	1036	34305
75	17300	17734	36462	-981	854	34774

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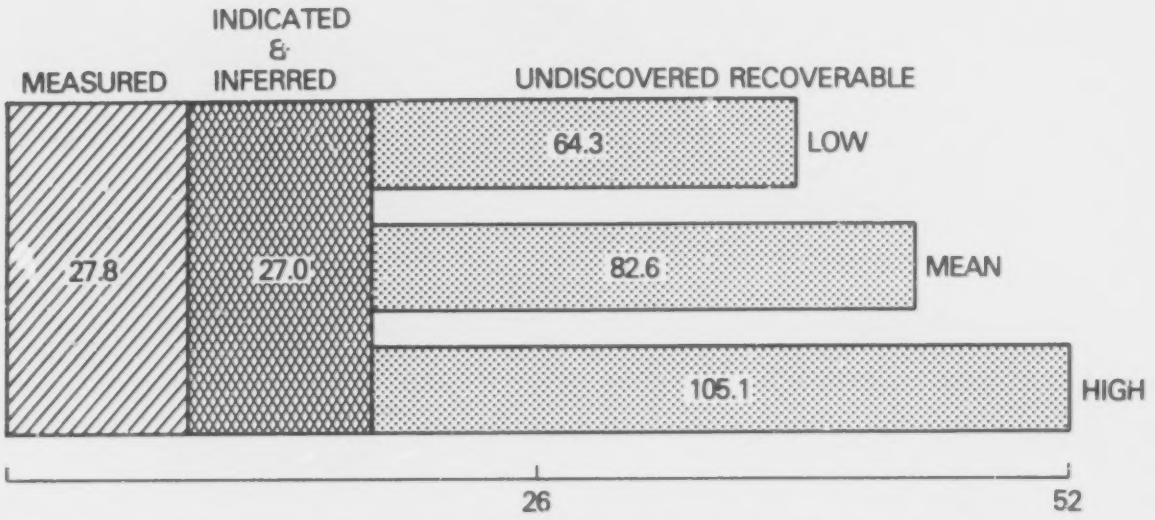
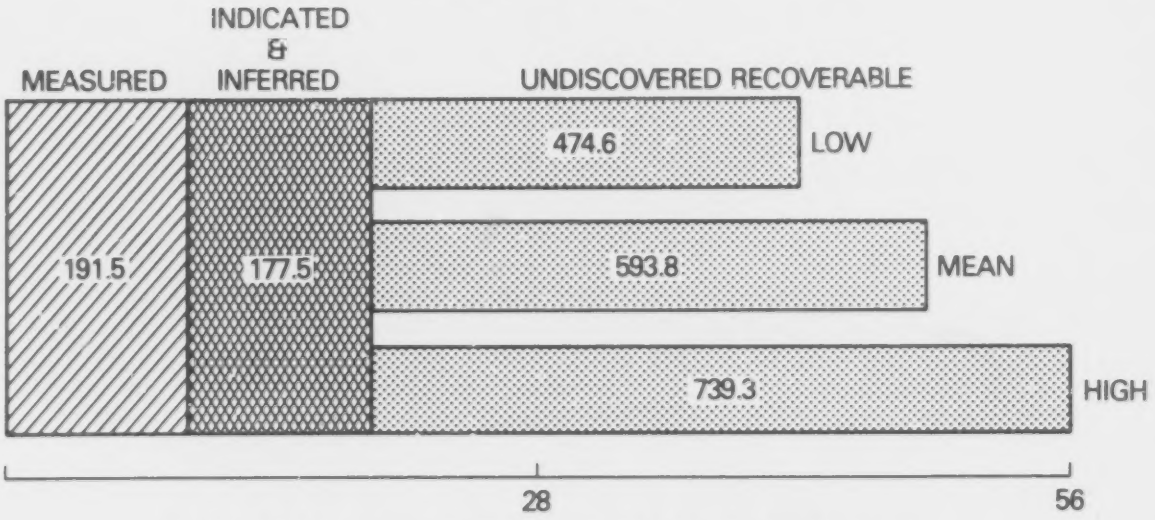
U.S. PETROLEUM RESOURCES

CRUDE OIL
(Billion Barrels)



YEARS OF REMAINING SUPPLY AT 1980 PRODUCTION RATE

NATURAL GAS
(Trillion Cubic Feet)



YEARS OF REMAINING SUPPLY AT 1980 PRODUCTION RATE

Source: U.S. Geological Survey - Circ. 860 - 1981.
These USGS estimates do not include potentially large supplies from Heavy oil, tar sands, coal gas, geopressured reservoirs and Gas hydrates.

IPAA CHART

STATISTICAL SUMMARY OF THE PETROLEUM INDUSTRY

	PRODUCTION			IMPORTS			TOTAL SUPPLY[2]	TOTAL DEMAND	CRUDE OIL RESERVES		CRUDE OIL PRICE
	Crude Oil	NGL	Total	Crude[1] Oil	Refined Products (thous. b/d)	Total			Proved Reserves (thous. bbls.)	New Reserves	($/bbl.)
1950	5,407	499	5,906	487	363	850	6,856	6,861	25,268,398	2,562,685	2.51
1951	6,158	561	6,719	491	353	844	7,620	7,487	27,468,031	4,413,954	2.53
1952	6,256	611	6,867	573	379	952	7,847	7,712	27,960,554	2,749,288	2.53
1953	6,458	654	7,112	648	386	1,034	8,176	8,010	28,944,828	3,296,130	2.68
1954	6,342	691	7,033	656	396	1,052	8,117	8,119	29,560,746	2,873,037	2.78
1955	6,807	771	7,578	782	466	1,248	8,870	8,832	30,012,170	2,870,724	2.77
1956	7,151	800	7,951	934	502	1,436	9,439	9,213	30,434,649	2,974,336	2.79
1957	7,170	808	7,978	1,022	552	1,574	9,613	9,395	30,300,405	2,424,800	3.09
1958	6,710	807	7,517	953	747	1,700	9,282	9,394	30,535,917	2,608,242	3.01
1959	7,054	879	7,433	966	814	1,780	9,799	9,737	31,719,347	3,666,745	2.90
1960	7,035	929	7,964	1,016	799	1,815	9,926	10,000	31,613,211	2,365,328	2.88
1961	7,183	991	8,174	1,045	872	1,917	10,270	10,150	31,758,505	2,657,567	2.89
1962	7,332	1,021	8,353	1,127	955	2,082	10,610	10,568	31,389,223	2,180,896	2.90
1963	7,542	1,098	8,640	1,131	992	2,123	10,965	10,951	30,969,990	2,174,110	2.89
1964	7,614	1,155	8,769	1,198	1,060	2,258	11,244	11,225	30,990,510	2,664,767	2.88
1965	7,804	1,210	9,014	1,239	1,229	2,468	11,702	11,700	31,352,391	3,048,079	2.86
1966	8,295	1,284	9,579	1,225	1,348	2,573	12,398	12,283	31,452,127	2,963,978	2.88
1967	8,810	1,409	10,219	1,128	1,409	2,537	13,049	12,867	31,376,670	2,962,122	2.92
1968	9,096	1,504	10,600	1,291	1,549	2,840	13,787	13,624	30,707,117	2,454,635	2.94
1969	9,238	1,590	10,828	1,409	1,757	3,166	14,333	14,370	29,631,862	2,120,036	3.09
1970	9,637	1,660	11,297	1,324	2,095	3,419	15,071	14,956	39,001,335	12,688,918	3.18
1971	9,463	1,694	11,157	1,680	2,245	3,925	15,520	15,437	38,062,957	2,317,732	3.39
1972	9,441	1,744	11,185	2,216	2,525	4,741	16,370	16,589	36,339,408	1,557,848	3.39
1973	9,208	1,738	10,946	3,244	3,012	6,256	17,687	17,539	35,299,839	2,145,831	3.89
1974	8,774	1,688	10,462	3,477	2,635	6,112	17,065	16,873	34,249,956	1,993,573	6.74
1975	8,375	1,632	10,007	4,105	1,951	6,056	16,577	16,531	32,682,127	1,318,463	7.56
1976	8,132	1,604	9,736	5,287	2,026	7,313	17,640	17,684	30,942,166	1,085,291	8.14
1977	8,245	1,618	9,863	6,594	2,193	8,787	19,218	18,674	29,486,402	1,403,780	8.57
1978	8,707	1,567	10,274	6,194	2,008	8,202	18,969	19,209	27,803,760	1,347,616	8.96
1979	8,552	1,583	10,135	6,452	1,937	8,389	19,084	18,987	27,051,289	2,205,673	12.51
1980	8,597	1,573	10,170	5,219	1,646	6,865	17,709	17,600	29,805,000	2,970,000	21.59
1981	8,572	1,609	10,181	4,141	1,599	5,740	16,540	16,653	29,426,000	2,570,000	31.77
1982	8,649	1,550	10,199	3,323	1,625	4,948	15,676	16,111	27,858,000	1,382,000	28.52
1983	8,688	1,559	10,247	3,096	1,721	4,817	15,801	15,970	27,735,000	2,897,000	26.13
1984	8,879	1,630	10,509	3,229	2,011	5,240	16,820	16,448	N/A	N/A	25.88

Sources: Energy Information Administration and American Petroleum Institute

N/A - Not Available
[1]Excludes imports to strategic Petroleum Reserve
[2]Includes processing gain, unaccounted crude and other hydrocarbons.
Note: Reserves figures estimated as of December 31st.

STATISTICAL SUMMARY OF THE PETROLEUM INDUSTRY—continued

	NATURAL GAS		GAS RESERVES		NATURAL GAS PRICE	DRILLING DATA				TOTAL FOOTAGE DRILLED
	Marketed Production	Gas Imports	Proved Reserves	New Reserves		Oil Wells	Gas Wells	Dry Holes	Total Wells	
	(MMcf)				($/Mcf)	(number of wells)				(mill. ft.)
1950	6,282,060	0	184,584,745	12,038,296	.07	24,430	2,843	14,757	43,279	159.3
1951	7,457,359	0	192,758,910	16,097,838	.07	23,453	3,030	16,653	44,516	172.3
1952	8,013,457	7,807	198,631,566	14,465,372	.08	23,466	3,255	17,618	45,821	187.2
1953	8,396,916	9,225	210,298,763	20,855,462	.09	25,762	3,806	18,449	49,279	198.8
1954	8,742,546	6,847	210,560,931	9,637,482	.10	29,773	3,974	19,168	53,927	219.0
1955	9,405,351	10,888	222,482,544	21,984,780	.10	31,567	3,608	20,742	56,677	226.3
1956	10,081,923	10,380	236,483,215	24,849,356	.11	30,737	4,543	21,797	58,126	233.9
1957	10,680,258	37,941	245,230,137	20,186,812	.11	28,012	4,620	20,976	53,838	223.1
1958	11,030,248	135,797	252,761,792	18,954,306	.12	24,578	4,803	19,043	50,039	198.2
1959	12,046,115	133,990	261,170,431	20,781,702	.13	25,800	5,029	19,265	51,764	209.2
1960	12,771,038	155,646	262,326,326	14,175,251	.14	21,186	5,258	17,574	46,751	190.7
1961	13,254,025	218,860	266,273,642	17,325,965	.15	21,101	5,664	17,106	46,962	192.1
1962	13,876,622	401,534	272,278,858	19,643,189	.16	21,249	5,848	16,682	46,179	198.6
1963	14,746,663	406,204	276,151,233	18,418,400	.16	20,288	4,751	16,347	43,653	184.4
1964	15,546,592	443,326	281,251,454	20,447,249	.15	20,620	4,855	17,488	45,236	189.9
1965	16,039,753	456,394	286,468,923	21,469,762	.16	18,761	4,724	16,025	41,423	181.5
1966	17,206,628	479,780	289,332,805	20,354,955	.16	16,447	4,167	15,770	38,536	165.5
1967	18,171,325	564,226	292,907,703	21,955,736	.16	15,329	3,659	13,246	33,818	144.7
1968	19,322,400	651,885	287,349,852	13,815,576	.16	14,331	3,456	12,812	32,914	149.3
1969	20,698,240	726,951	275,108,835	8,482,173	.17	14,368	4,083	13,736	34,053	161.0
1970	21,920,642	820,780	290,746,408	37,598,377	.17	13,043	4,031	11,099	29,542	142.0
1971	22,491,012	934,548	278,805,618	10,135,722	.18	11,903	3,983	10,382	27,682	130.7
1972	22,531,698	1,019,496	266,084,846	9,791,126	.19	11,437	5,484	11,013	29,420	142.5
1973	22,647,549	1,032,901	249,950,207	6,470,767	.22	10,251	6,975	10,466	28,662	141.9
1974	21,600,522	959,284	237,132,497	8,500,760	.30	13,644	7,168	12,205	34,415	156.7
1975	20,108,661	953,008	228,200,176	10,786,249	.45	16,979	8,169	13,736	40,804	184.9
1976	19,952,438	963,768	216,026,047	7,367,918	.58	17,697	9,438	13,805	42,614	190.9
1977	20,025,463	1,011,001	208,877,878	12,298,854	.79	18,700	12,119	15,036	47,308	219.6
1978	19,974,033	965,545	200,301,707	10,734,877	.91	19,065	14,405	16,591	51,671	242.5
1979	20,471,260	1,253,383	194,916,624	14,525,270	1.18	20,689	15,166	16,035	53,362	247.4
1980	19,883,729	984,767	199,021,000	16,723,000	1.59	32,120	17,132	20,234	71,562	316.4
1981	19,960,349	903,949	201,730,000	21,446,000	1.98	42,520	19,742	26,972	91,600	412.3
1982	18,519,675	933,336	201,512,000	17,288,000	2.46	38,063	18,363	25,266	83,880	375.2
1983	16,822,144	919,752	200,247,000	14,523,000	2.59	35,230	13,699	22,468	73,299	310.3
1984	18,099,407	861,000	N/A	N/A	2.63	34,877	11,858	21,363	69,619	314.9

Sources: Drilling data from American Petroleum Institute and American Association of Petroleum Geologists, based on well completion system.
Reserves from American Gas Association and EIA.
All other data from Energy Information Administration.

N/A = Not Available

Notes: Drilling data include service wells, stratigraphic and core tests.
Reserve figures estimated as of December 31st.

INDUSTRY GLOSSARY

Abandonments — The number of producing wells that have been abandoned during the year.

Acreage Under Lease — The number of land acres leased by the landowner for searching out petroleum.

Artificial Lifting — Any method used to stimulate the production of oil and gas in excess of the flow resulting under natural reservoir pressures, e.g. pumping, secondary or tertiary recovery.

Associated Gas — Natural gas that occurs with crude oil in the reservoir either as free gas or in solution, also known as gas-cap gas.

Barrel — The standard volumetric measure for petroleum, equivalent to 42 U.S. gallons.

Casing — Heavy steel pipe used in oil wells to seal off fluids from the bore hole and to prevent the walls from caving in.

Chase Bank Group — A group of 24 of the largest U.S. oil companies from which Chase Manhattan Bank gathers annual financial and operating data. All other oil companies are aggregated to represent the independent sector of the domestic petroleum industry.

Christmastree — An assembly of flanges and valves mounted on the casing at the surface through which a well is produced, used for testing the well and shutting it in if necessary.

Condensate — A mixture of liquid hydrocarbons at atmospheric conditions which occur in a gaseous state underground, sometimes known as distillate or natural gasoline.

Crew Months — The standard time measure of the geophysical search for petroleum.

Crude Oil — Hydrocarbons in liquid unprocessed form that vary significantly in properties such as API gravity, viscosity and sulfur content.

Cubic Foot — The standard measure for natural gas; the amount required to fill a volume of one cubic foot under given atmospheric conditions.

Development Well — Either an oil, gas or dry hole drilled within an area known to be productive.

Distillate Fuel Oil — One of the petroleum fractions produced by conventional distillate, includes fuel oil and diesel fuel.

Dry Hole — A completed well which is not productive of oil and gas in commercial quantities.

Dry Natural Gas — Natural gas that does not contain dissolved liquid hydrocarbons.

Exploratory Well — Either an oil, gas or dry hole drilled to discover an oil-bearing formation or its limits.

Field — An area that encompasses a group of oil and gas wells, underlaid by one or more reservoirs.

Gas Well — An exploratory or development well completed for the production of natural gas.

Liquefied Petroleum Gas (LPG) — Butane, propane and other light products separated from natural gasoline or crude oil by fractionation or other processes. At atmospheric pressure, it reverts to the gaseous state.

Middle Distillates — A general classification that includes distillate fuel oil and kerosene.

Natural Gas — Hydrocarbons in gaseous form or mixed with crude oil.

Natural Gas Liquids (NGL) — Hydrocarbons found with natural gas that are recoverable by condensation or absorption, such as LPG or natural gasoline.

Nonassociated Gas — Free natural gas that does not occur in contact or dissolved with crude oil in the reservoir.

Oil Well — An exploratory or development well completed for the production of crude oil.

Petroleum — Includes in its broadest sense the entire spectrum of hydrocarbons — gaseous, liquid and solid.

Pipeline — A line of tubes with pumping machinery that transports oil or gas from the wellhead to the storage tank or petroleum refinery.

Product — Any commodity made from crude oil or natural gas through the refinery process.

Proved Reserves — The estimated quantity of crude oil, natural gas or NGL that is shown with reasonable certainty to be recoverable from known fields under existing economic and operating conditions.

Refinery — A plant for separating crude oils and converting the major components into finished petroleum products.

Reservoir — A permeable sedimentary rock formation which is porous enough to allow oil, gas and water to move freely. Hydrocarbons are found in the sealed portions known as traps.

Residual Fuel Oil — The heavy, high-viscosity leftover from the refining process, used mainly for industrial purposes.

Rotary Drilling Rig — A derrick equipped with modern rotary equipment capable of drilling a bore hole with a bit attached to a rotating column of steel pipe, in contrast to a cable tool rig which drills on the percussion principle.

Seismic Exploration Activity — The search for geological structures which are potential petroleum-bearing formations. A group of geophysicists explode charges in shot holes and interpret on geophones the data from seismic shocks.

Severance Tax — A tax levied by some states on each barrel of oil or each thousand cubic feet of gas produced.

Strategic Petroleum Reserve — Crude oil inventories held in government underground storage for use during periods of supply interruptions.

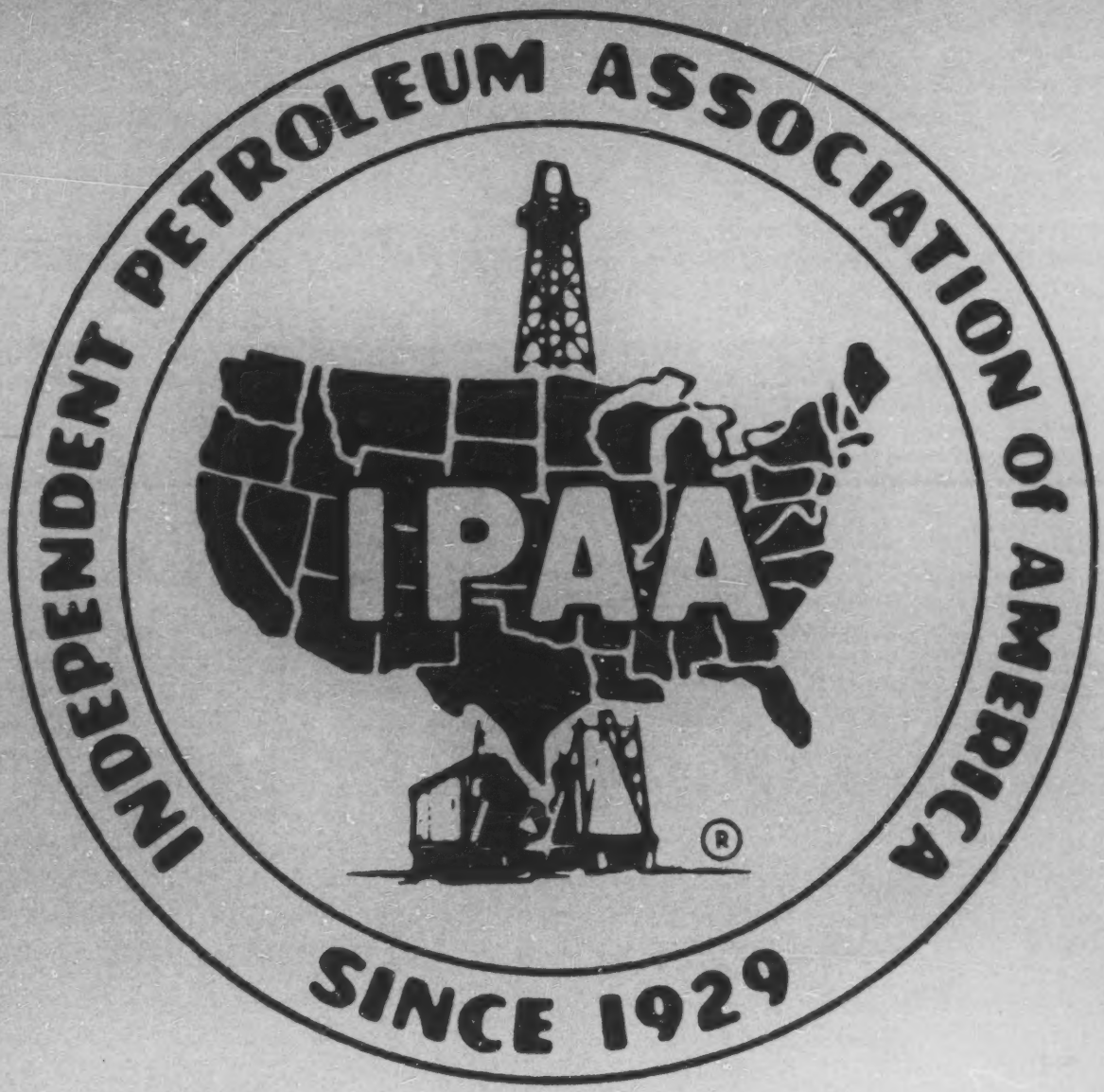
Stratigraphic Test — A hole drilled to gather information about a stratigraphic formation such as the general permeability and porosity of the rocks; includes core tests.

Stripper Well — A producing well which pumps or "strips" less than 10 barrels of oil or 60 Mcf of natural gas per day.

Stripper Well Reserves — The estimated amount of additional crude oil or natural gas which can be recovered by (1) primary means or (2) secondary recovery methods.

Well — A hole drilled to find or produce hydrocarbons, or to provide services related to their production.

Wildcat Well — A type of exploratory well drilled in an unproven area where there has been no previous production.



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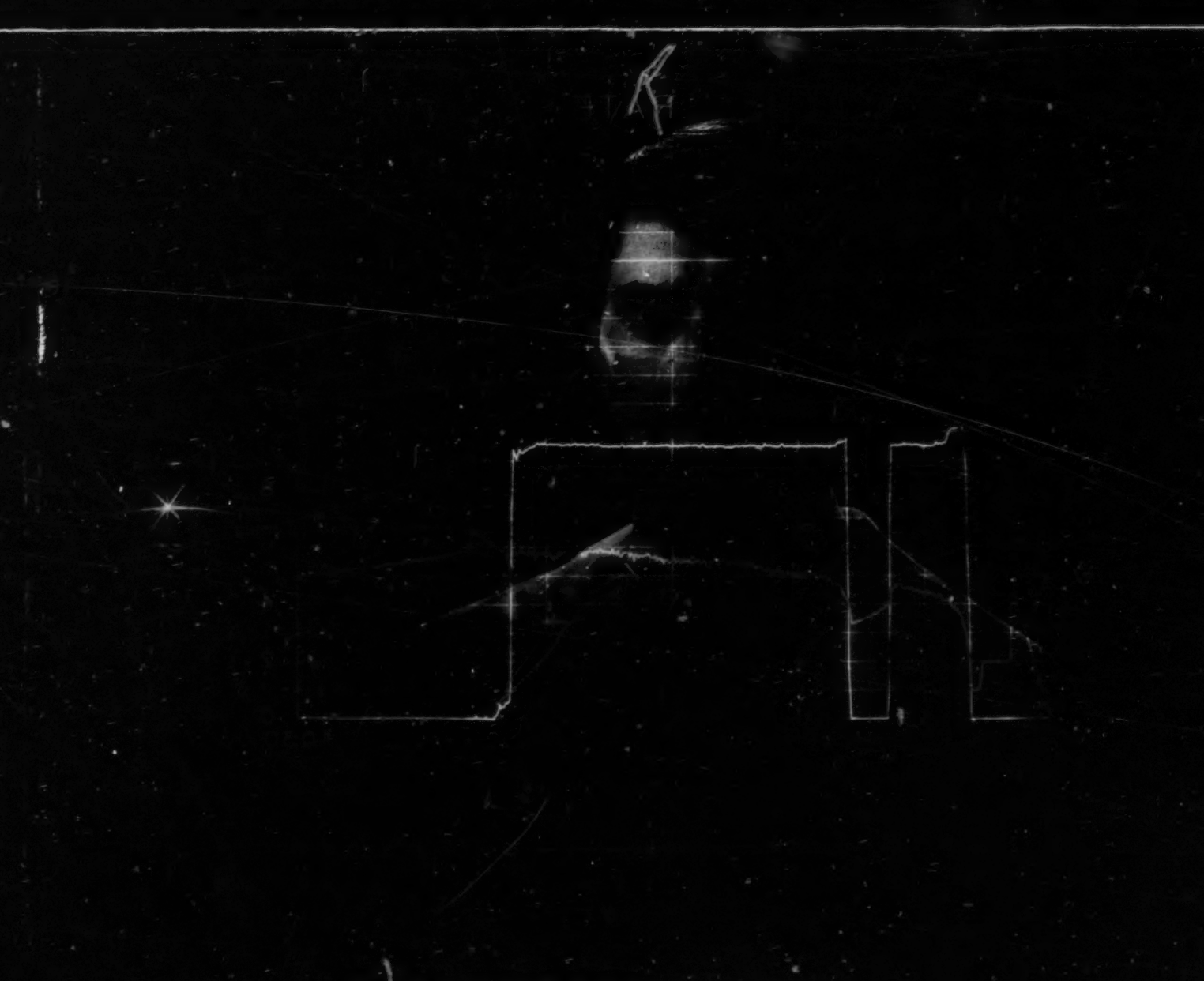

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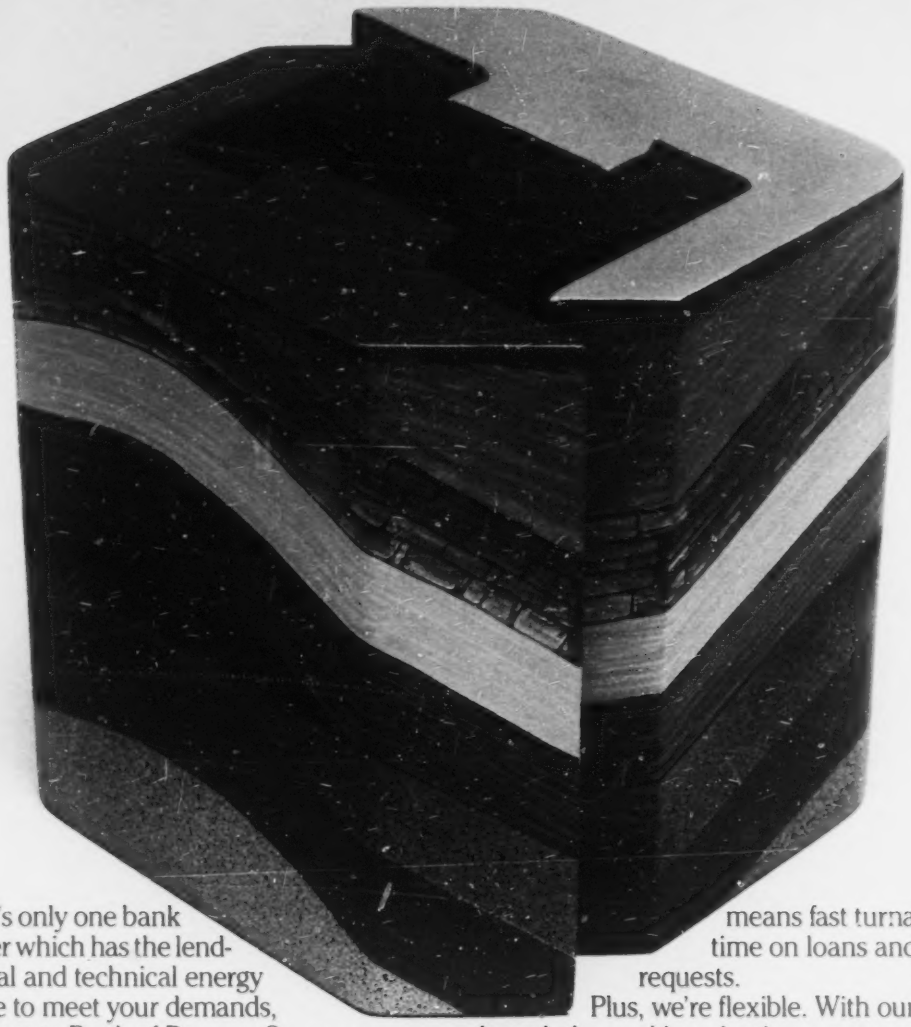

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